



# भारत का राजपत्र The Gazette of India

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

सं० 40]  
No. 40]

नई दिल्ली, शनिवार, अक्टूबर 6, 1990 (आश्विन 14, 1912)  
NEW DELHI, SATURDAY, OCTOBER 6, 1990 (ASVINA 14, 1912)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके  
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

## भाग III—खण्ड 2 [PART III—SECTION 2]

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस  
[Notifications and Notices Issued by the Patent Office relating to Patents and Designs]

THE PATENT OFFICE  
PATENTS AND DESIGNS  
Calcutta, the 6th October 1990

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Bombay-400 013.

The States of Gujarat, Maharashtra and Madhya Pradesh and the Union Territories of Goa, Daman and Diu and Dadra and Nagar Haveli.

Telegraphic address "PATOFFICE".

Patent Office Branch,  
Unit No. 401 to 405, III Floor,  
Municipal Market Building,  
Saraswati Marg, Karol Bagh,  
New Delhi-110 005.

The States of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh and the Union Territories of Chandigarh and Delhi.

Telegraphic address "PATENTOFIC".

Patent Office Branch,  
61, Wallajah Road,  
Madras-600 002.

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Telegraphic address "PATENTOFIS".

Patent Office (Head Office),  
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5th, 6th and 7th Floor,  
234/4, Acharya Jagdish Bose Road,  
Calcutta-700 020.

Rest of India.

Telegraphic address "PATENTS".

All applications, notices, statements or other documents or any fees required by the Patents Act, 1970 or the Patents Rules, 1972 will be received only at the appropriate Offices of the Patent Office.

**Fees** :—The fees may either be paid in cash or may be sent by Money Order or Postal Order, payable to the Controller at the appropriate Offices or by Bank Draft or Cheque, payable to the Controller drawn on a scheduled bank at the place where the appropriate office is situated.

## पेटेंट कार्यालय

एकस्य तथा अमिकस्य

कलकत्ता, दिनांक 6 अक्टूबर 1990

पेटेंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ता में स्थित है तथा बम्बई, दिल्ली एवं मद्रास में इसके शाखा कार्यालय हैं, जिनके प्रादेशिक क्षेत्राधिकार जोन के आधार पर निम्न रूप में प्रदर्शित हैं :—

पेटेंट कार्यालय शाखा, दोही स्टेट,  
सीसरा तल, लोअर परेल (पश्चिम),  
बम्बई-400 013

गुजरात, महाराष्ट्र तथा मध्य प्रदेश राज्य क्षेत्र एवं संघ शासित क्षेत्र गोआ, दमन तथा दिव एवं दादरा और नगर हवेली।

तार पता—“पेटोफिस”

पेटेंट कार्यालय शाखा,  
इकाई से० 401 से 405, सीसरा तल,  
नगरपालिका बाजार भवन,  
सरस्वती मार्ग, करोल बाग,  
नई दिल्ली-110 005

हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर, पंजाब, राजस्थान तथा उत्तर प्रदेश राज्य क्षेत्रों एवं संघ शासित क्षेत्र चंडीगढ़ तथा दिल्ली।

तार पता—“पेटेंटोफिक”

पेटेंट कार्यालय शाखा,

61, बालाजाह रोड,

मद्रास-600 002

आंध्र प्रदेश, कर्नाटक, केरल, तमिलनाडु राज्य क्षेत्र एवं संघ शासित क्षेत्र पाण्डिचेरी, लक्षद्वीप, मिनिक्कोय तथा एमिनिदिवि द्वीप।

तार पता—“पेटेंटोफिस”

पेटेंट कार्यालय (प्रधान कार्यालय),  
निष्ठा भवन, राष्ट्रीय अनुसंधान कार्यालय  
मकान 5, एम.एस.सी. तल,  
234/4, आचार्य जगदीश बोस रोड,  
कलकत्ता-700 020

भारत का अन्वेषण क्षेत्र

तार पता—“पेटेंटस”

पेटेंट अधिनियम, 1970 या पेटेंट नियम, 1972 में अपेक्षित सभी आवेदन-पत्र, सूचनाएं, विवरण या अन्य प्रलेख पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में ही प्राप्त किए जाएंगे।

शुल्क : —शुल्कों की अवधि या तो नकद की जाएगी अथवा उपयुक्त कार्यालय में नियंत्रक को भुगतान योग्य धनादेश अथवा ढाक आदेश या जहाँ उपयुक्त कार्यालय स्थित है, उस स्थान के अनुसूचित बैंक से नियंत्रक को भुगतान योग्य बैंक ड्राफ्ट अथवा बैंक द्वारा की जा सकती है।

## CORRIGENDUM

In the Gazette of India, Part-III, Sec. 2, dated 11th February, 1989 under the headings “PATENTS SEALED” delete the number 162952.

APPLICATION FOR PATENTS FILED AT THE HEAD OFFICE  
234/4, ACHARYA JAGADISH BOSE ROAD, CALCUTTA-20

The dates shown in the crescent brackets are the dates claimed under Section 135, of the Patents Act 1970.

The 27th August, 1990

737/Cal/90. Samarjit Chatterjee. In an electric circuit having a fuse carrier/holder means determining cause of blown out of said fuse.

738/Cal/90. RCA Licensing Corporation. An apparatus and method for manufacturing a screen assembly for a crt utilizing a grid-developing electrode.

739/Cal/90. Proizvodstvennoe Obiedinenie “Nevsky Zavod” Imeni V.I. Lenina USSR. Centrifugal compressor.

740/Cal/90. Envirex Inc. Method and apparatus for producing organic based fertilizer in continuous process.

741/Cal/90. BVK Konsalting. Apparatus for achieving and maintaining penis erection.

742/Cal/90. K. Jagan Mohan Rao and K. Savitri Rao. Ion selective electrodes. [Divisional dated 18th September, 1987].

The 28th August, 1990

743/Cal/90. Texaco Development Corporation. Water cut monitoring means and method.

744/Cal/90. O & K Orenstein & Koppel Aktiengesellschaft. Drag thooth for pinion-tyre cutting wheels.

745/Cal/90. Hitachi, Ltd. Vertical shaft pump.

746/Cal/90. Idemitsu Petrochemical Co. Ltd. A process of and an apparatus for sealing thermoplastic resin sheet.

The 29th August, 1990

747/Cal/90. Dr. Allan Shaw, Russell Extcourt Luxton and Luminis Pty. Ltd. Comfort integration and energy efficient method of air conditioning. (Convention dated August, 30, 1989; No. PJ 6035; Australia)

748/Cal/90. Uppuluru Venkata Subramanya Sarma. Simultaneous utilising fans as mosquito repeller vaporiser.

The 31st August, 1990

749/Cal/90. Hoechst Aktiengesellschaft. Aqueous preparations of C.J. azoic diazo components, their preparation and use.

750/Cal/90. Hoechst Aktiengesellschaft. Multi-component mixtures of bright red disperse azo dyestuffs.

751/Cal/90. E.I. Du Pont De Nemours and Company. Highly processable aromatic polyamide fibers, their production and use.

The 3rd September, 1990

752/Cal/90. Johs. Krause GmbH Maschinenfabrik. Apparatus for the treatment of hides in wet processes.

753/Cal/90. Merck Patent Gesellschaft Mit Beschränkter Haftung. Platelet-like, surface-modified substrates.

754/Cal/90. Merck Patent Gesellschaft Mit Beschränkter Haftung. Polymer-encapsulated Platelet-like substrates.

755/Cal/90. Samsung Electron Devices Co. Ltd. Color cathode ray tube having improved spring type contactor.

756/Cal/90. The Babcock & Wilcox Company. Transport conduit for hot particulate material.

757/Cal/90. Samsung Electron Devices Co. Ltd. Assembling structure for inner shield and frame in cathode ray tube.

758/Cal/90. Samsung Electron Devices Co. Ltd. Cathode for electron gun and its manufacturing method.

759/Cal/90. Samsung Electron Devices Co. Ltd. Arc suppressing means for cathode ray tube.

APPLICATIONS FOR PATENTS FILED AT THE PATENT OFFICE BRANCH, 61, WALLAJAH ROAD, MADRAS-600 002.

The 20th August, 1990

658/Mas/90. B. Balachandran Nair & C. K. Cherian. Petrol moderate bank.

659/Mas/90. Govindaswamy Venkatachalpathy. Improvement in or relating to internal combustion engine, or piston, cylinder, crank engine.

660/Mas/90. Reckitt & Colman Products Limited. Device for the evaporation of volatile liquids. (August 26, 1990; United Kingdom)

661/Mas/90. Sulzer-Escher Wyss AG. Pusher centrifuge.

The 21st August, 1990

662/Mas/90. Snamprogetti S.p.A. Urea production process with high energy efficiency.

663/Mas/90. George Williamson & Co. Limited. Method and apparatus for treating and packing tea (April 26, 1990; United Kingdom)

664/Mas/90. Joseph, Muthukulathil. Anna Churn

The 22nd August, 1990

665/Mas/90. Ramasamy Suresh. A double life fluorescent tube lamps with movable link.

666/Mas/90. Dansk Teknologisk Institut. A method and apparatus for compressing a wooden sample.

667/Mas/90. Schlumberger Limited. A method for providing a tangible log of the concentration at depths in a formation traversed by borehole. (Divisional to Patent Application No. 685/Mas/86).

668/Mas/90. Sepracor, Inc. Method and apparatus for catalyst containment in multiphase membrane reactor systems (Divisional to Patent Application No. 801/Mas/86).

669/Mas/90. Union Carbide Chemicals and Plastics Company Inc. Stable emulsions containing amino polysiloxanes and silanes for tearing fibers and fabrics.

The 23rd August, 1990

670/Mas/90. Vasu Kunjan Jothyshalayam Bose. Freely suspended bladed wind-cum-water turbine.

671/Mas/90. Ausment Pty. Ltd. Method of smelting. (August 24, 1989; Australia).

672/Mas/90. Roger William Anderson. Skateboard.

673/Mas/90. Carter Engineering and Consulting (an unincorporated entity registered in San Mateo county, California). Sealing Gasket for reticulated foam filter and process therefor.

674/Mas/90. McPherson's Limited. Blade Sharpener. (August 28, 1989; Australia).

675/Mas/90. Zellweger Uster AG. Thread drawing-off device.

676/Mas/90. Teknol Holdings Inc. Crate.

#### ALTERATION

167127. Anti-dated to 14th June, 1984. (349/Mas/87)

#### OPPOSITION PROCEEDINGS

(1)

An Opposition has been entered by Kinetic Engineering Limited, Pune-411019, Maharashtra, India to the grant of a Patent on Application No. 166077 made by Bajaj Auto Limited, Pune-411035.

(2)

An Opposition has been entered by The Associated Cement Companies Limited, Bombay-400 020 to the grant of a Patent on Application No. 166049 made by Greaves Foseco Limited, Bombay.

#### PATENT SEALED

157909 162515 163037 163246 164217 165352 165663 165670 165705  
165749 165759 165771 165772 165773 165774 165775 165776 165777  
165778 165779 165780 165781 165796 165797 165798 165803 165818  
165823 165824 165874

Cal—10  
 Mas—15  
 Del— 2  
 Bom— 3

# REGISTRATION OF ASSIGNMENTS LICENCES ETC. (PATENTS)

(1)

In pursuance of an application received on 18-1-90, M/s. Sri Amba Cement (P) Ltd., H.No. 14-11-81, Bir Ban Bagh, Hyderabad-500 012 registered as licensee by virtue of a licence agreement dated 22-9-88 and made between National Research & Development Corporation of the one part and M/s. Sri Amba Cement (P) Ltd. of other part in respect of Patent No. 145580.

(2)

In pursuance of an application received on 13th Sep. 1988, M/s. Prag Shiva Cement (P) Ltd. Purbanchal Sales and Service Agency Capital Road, Dispur, Guwahati-781006 registered as licensee by virtue of a licence agreement dated 24-6-88 and made between National Research & Development Corporation of the one part and M/s. Prag Shiva Cement (P) Ltd. of other part in respect of Patent No. 145580.

(3)

In pursuance of an application received on 6-9-88 M/s. Udayana Cement (P) Ltd., Ganesh Chanra Daa Village, Basisthapur Guwahati-781006 registered as licensee by virtue of licence agreement dated 23-5-88 and made between National Research & Development Corporation of the one part and M/s. Udayana Cement (P) Ltd. of other part in respect of Patent No. 145580.

## RENEWAL FEES PAID

145758 147233 147272 147471 147688 147721 148035 148110 148480  
 148558 148695 148731 148734 148752 148857 149089 149676 149992  
 150102 150320 150473 150571 150647 150691 151100 151152 151193  
 151194 151341 151389 151441 151466 151468 151606 151653 151682  
 151694 151966 152012 152258 152411 152921 153142 153195 153207  
 153261 153297 153328 153378 153592 153768 153775 153807 153817  
 153877 153910 154222 154223 154258 154299 154446 154455 154459  
 154591 155094 155157 155184 155299 155325 155403 155447 155448  
 155551 155591 155595 155597 155635 155666 155783 155809 155855  
 155999 156025 156126 156152 156533 156535 156823 157078 157236  
 157311 157373 157396 157507 157546 157547 157600 157610 157768  
 157802 157811 157881 157882 157911 157989 158061 158340 158537  
 159015 159024 159026 159041 159312 159316 159456 159475 159716  
 159887 159917 160018 160020 160021 160027 160102 160162 160163  
 160201 160206 160258 160270 160322 160336 160337 160387 160463  
 160464 160469 160470 160478 160479 160481 160577 160753 160767  
 160778 160887 160922 160932 160946 160947 160950 161011 161012  
 161079 161133 161168 161170 161290 161398 161372 161422 161621  
 161699 161835 162089 162146 162161 162162 162359 162446 162447  
 162484 162560 162576 162627 162645 162648 162739 162740 162852  
 162854 162898 162915 162933 162934 162968 163104 163105 163166  
 163182 163183 163213 163214 163233 163397 163398 163644 163645  
 163711 163837 164033 164086 164100 164106 164201 164208 164210  
 164263 164275 164317 164318 164319 164320 164340 164366 164413  
 164417 164431 164433 164434 164438 164458 164471 164489 164528  
 164530 164541 164542 164585 164590 164596 164660 164757 164773  
 164809 164853 164860 164979 165202 165226 165243 165288 165316  
 165324 165362 165453 165465 165468 165473 165571 165686 165691  
 165703 165746 165791 165794.

## RESTORATION PROCEEDINGS

(1)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 161277 granted to IMCC Public Limited Company for an invention relating to "an optical fibre ribbon structure and a method of manufacturing the same".

The Patent ceased on the 12th June, 1989 due to non-payment of renewal fees within the prescribed time and the cessation of the Patent was notified in the Gazette of India, Part III, Section 2 dated the 25th August, 1990.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32, in duplicate, with the Controller of Patents, The Patent Office, "Nizam Palace", 2nd M.S.O. Building, 5th, 6th and 7th Floor, 234/4, Acharya Jagadish Bose Road, Calcutta-700 020 on or before the 6th December, 1990 under Rule 69 of the Patents Rules, 1972. A written statement, in triplicate, setting out the nature of the opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

(2)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 164481 granted to Instruments & Components for an invention relating to "a control mechanism to control the working of an associated mechanism or device".

The Patent ceased on the 26th May, 1990 due to non-payment of renewal fees within the prescribed time and the cessation of the Patent was notified in the Gazette of India, Part III, Section 2 dated the 25th August, 1990.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32, in duplicate, with the Controller of Patents, The Patent Office, "Nizam Palace", 2nd M.S.O. Building, 5th, 6th and 7th Floor, 234/4, Acharya Jagadish Bose Road, Calcutta-700 020 on or before the 6th December, 1990 under Rule 69 of the Patents Rules, 1972. A written statement, in triplicate, setting out the nature of the opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

(3)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 162102 granted to Stone & Webster Engineering Corporation for an invention relating to "automatic pressure sensitive regulation assembly".

The Patent ceased on the 13th July, 1989 due to non-payment of renewal fees within the prescribed time and the cessation of the Patent was notified in the Gazette of India, Part III, Section 2, dated the 25th August, 1990.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32, in duplicate, with the Controller of Patents, The Patent Office, "Nizam Palace", 2nd M.S.O. Building, 5th, 6th and 7th Floor, 234/4, Acharya Jagadish Bose Road, Calcutta-700 020 on or before the 6th December, 1990 under Rule 69 of the Patents Rules, 1972. A written statement, in triplicate, setting out the nature of the opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

(4)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 161549 granted to BICC Public Limited Company for an invention relating to "an overhead flexible electric Conductor".

The Patent ceased on the 12th June, 1989 due to non-payment of renewal fees within the prescribed time and the cessation of the Patent was notified in the Gazette of India, Part III, Section 2, dated the 25th August, 1990.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32, in duplicate, with the Controller of Patents, The Patent Office, "Nizam Palace", 2nd M.S.O. Building, 5th, 6th and 7th Floor, 234/4, Acharya Jagadish Bose Road, Calcutta-700 020 on or before the 6th December, 1990 under Rule 69 of the Patents Rules, 1972. A written statement, in triplicate, setting out the nature of the opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

(5)

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 160000 granted to Mohan Mahadev Gupte for an invention relating to "a device for cleaning the domestic water filter Candles".

The Patent ceased on the 2nd June, 1989 due to non-payment of renewal fees within the prescribed time and the cessation of the Patent was notified in the Gazette of India, Part III, Section 2 dated the 25th August, 1990.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32, in duplicate, with the Controller of Patents, The Patent Office, "Nizam Palace", 2nd M.S.O. Building, 5th, 6th and 7th Floor, 234/4, Acharya Jagadish Bose Road, Calcutta-700 020 on or before the 6th December, 1990 under Rule 69 of the Patents Rules, 1972. A written statement, in triplicate, setting out the nature of the opponent's interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

#### COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of patents on any of the Applications concerned, may, at any time within four months of the date of this issue or within such further period not exceeding one month applied for on Form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months, give notice to the Controller of Patents on the prescribed Form 15, of such opposition. The written statement of opposition should be filed alongwith the said notice or within one month of its date as prescribed in Rule 36 of the Patents Rules, 1972.

The classifications given below in respect of each specification are according to Indian Classification and International Classification.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2/- (postage extra if sent out of India). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with photo copies of the drawings, if any, can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office. Photo copying charges may be calculated by adding the number of pages in the specification and drawing sheets mentioned below against each accepted specification and multiplying the same by four to get the charges as the copying charges per page are Rs. 4/-.

#### स्वीकृत संपूर्ण विनिर्देश

एतद्वारा यह सूचना दी जाती है कि सम्बद्ध आवेदनों में से किसी पर पेटेंट अनुदान का विरोध करने के इच्छुक कोई व्यक्ति, इसके निर्गम की तिथि से 4 महीने या अग्रिम ऐसी अवधि जो उक्त 4 महीने की अवधि की समाप्ति के पूर्व पेटेंट नियम, 1972 के तहत विहित प्रपत्र-14 पर आवेदित एक महीने की अवधि से अधिक न हो, के भीतर कभी भी नियंत्रक, एकस्व को ऐसे विरोध की सूचना विहित प्रपत्र-15 पर दे सकते हैं। विरोध सम्बन्धी लिखित वक्तव्य, उक्त सूचना के साथ अथवा पेटेंट नियम, 1972 के नियम 36 में यथाविहित इसकी तिथि के एक महीने के भीतर ही फाइल किए जाने चाहिए।

"प्रत्येक विनिर्देश के संदर्भ में नीचे दिए वर्गीकरण, भारतीय वर्गीकरण तथा अन्तरराष्ट्रीय वर्गीकरण के अनुरूप हैं।"

नीचे सूचीगत विनिर्देशों की सीमित संख्या में मुद्रित प्रतियाँ, भारत सरकार बुक डिपो, 8, किरण शंकर राय रोड, कलकत्ता में विक्रय हेतु यथासमय उपलब्ध होगी। प्रत्येक विनिर्देश का मूल्य 2/- रु० है (यदि भारत के बाहर भेजे जाएं तो अतिरिक्त डाक खर्च)। मुद्रित विनिर्देश की आपूर्ति हेतु मांग पत्र के साथ निम्नलिखित सूची में यथाप्रदर्शित विनिर्देशों की संख्या संलग्न रहनी चाहिए।

रूपांकन (चित्र आरेखों) की फोटो प्रतियाँ, यदि कोई हों, के साथ विनिर्देशों की टंकित अथवा फोटो प्रतियों की आपूर्ति पेटेंट कार्यालय, कलकत्ता द्वारा विहित लिप्यान्तरण प्रभार उक्त कार्यालय से पत्र-व्यवहार द्वारा सुनिश्चित करने के उपरांत उसकी अदायगी पर की जा सकती है। विनिर्देश की पृष्ठ संख्या के साथ प्रत्येक स्वीकृत विनिर्देश के सामने नीचे वर्णित चित्र आरेख कागजों को जोड़कर उसे 4 से गुणा करके (क्योंकि प्रत्येक पृष्ठ का लिप्यान्तरण प्रभार 4/- रु० है) फोटो लिप्यान्तरण प्रभार का परिकलन किया जा सकता है।

Ind. Cl. : 29 D [X.1]  
Int. Cl. : G 06 F—15/30.

167291.

# LEDGER ENTRY TERMINAL FOR THE PURPOSES OF ACCOUNTING.

**Applicant :** WIPRO INFORMATION TECHNOLOGY LIMITED, BAKHTAWAR, 14TH FLOOR, 229, NARIMAN POINT, BOMBAY-400 021, MAHARASHTRA STATE, INDIA, AN INDIAN COMPANY.

**Inventor :** (1) D. V. SHESHA MOHAN RAO, (2) B. RAVI.

**Application No. :** 37/Bom/87 filed on February 6, 1987.

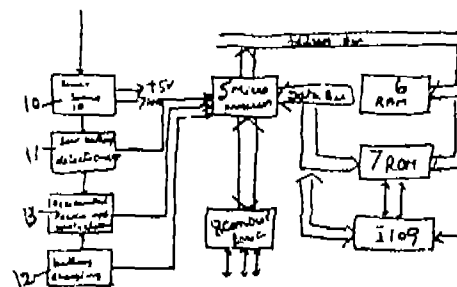
**Complete after Provisional left on** May 6, 1988.

**Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972).** Patent Office Branch, Bombay-13.

## 3 Claims

A Ledger Entry Terminal consisting of :

- a Z80B microprocessor which controls all logic blocks;
- a power supply unit being connected to the microprocessor for supply of power;
- a low battery detection unit, being connected to the power supply unit and the microprocessor;
- an accidental power off protection unit being connected to the low battery detection unit and the microprocessor which enables the system to save the entries if power supply is cut off;
- a battery charger being connected to the said accidental power off protection unit and the microprocessor;
- a control logic being connected to the said microprocessor;
- a 16KB random access memory being connected to the microprocessor for storing user entered vouchers;
- a read only memory being connected to the microprocessor for storing application software;
- an input/output interface having portbits which are required for the different peripherals such as a printer, display unit, key board and serial link;
- a printer mechanism;
- a 28 key-numeric keyboard with function keys F1 to F10 and cursor movement keys;
- a liquid crystal display module;
- a Ni-Cd rechargeable battery for backing up the whole system except the printer;
- a security lock for locking the keyboard; and
- an audio buzzer for attracting users attention in case of any wrong entries being made.



Prov. Specn. 5 Pages.

Drgs. 8 Sheets.

Compl. Specn. 14 Pages.

Drg. 1 Sheet.

Ind. Cl. : 32A: IX (1)

167292

Int. Cl. : C 09 B—62/00, 62/006, 62/008.

# A PROCESS FOR THE PREPARATION OF NOVEL MONO AZO REACTIVE DYES HAVING AT LEAST TWO REACTIVE SYSTEMS.

**Applicant :** JAYSYNTH DYECHEM LIMITED, 303 NAVJIVAN, 125/127, KAZI SAYED STREET, BOMBAY-400 003, MAHARASHTRA, INDIA.

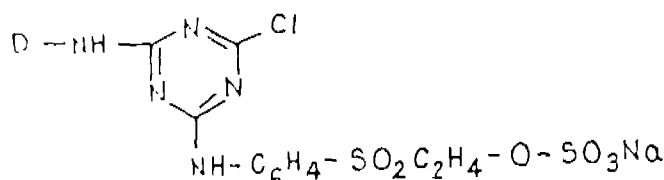
**Inventor :** DR. GOLE SHRIKANT HARI.

**Application No. :** 367/Bom/87 filed on December 14, 1987.

**Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972).** Patent Office Branch, Bombay-13.

## 2 Claims

A process for the preparation of novel mono azo reactive dyes having at least two reactive systems and being of the Formula I



## Formula I

wherein D is a mono azo chromophore, said process comprises :

- (i) coupling a diazotised diazo component such as herein described with a coupling component such as herein described at 0-5°C and pH 6.5-7 in an aqueous medium;
- (ii) condensing the resulting mono azo chromophore with a first condensing agent such as herein described at 0-5°C and pH 6.5-7 in an aqueous medium;

- (iii) further condensing the mono azo reactive intermediate with a second condensing agent such as herein described at 50-55°C and pH 6.5-7 in an aqueous medium;
- (iv) precipitating the mono azo reactive dye of the formula I with an alkali metal salt such as herein described;
- (v) filtering the reactive dye of the formula I; and
- (vi) drying the reactive dye of the formula I at 50-70°C.

Compl. Specn. 11 Pages.

Drgs. 6 Sheets.

Ind. Cl.: 206 E K LXII  
Int. Cl.: 11 03 j—5/24.

167293

AN IMPROVED ELECTRONIC FREQUENCY TUNING CIRCUITRY FOR USE IN A RADIO FREQUENCY RECEIVING APPARATUS SUCH AS RADIO OR TELEVISION.

Applicant: PIECO ELECTRONICS AND ELECTRICALS LTD., SHIVSAGAR ESTATE, BLOCK 'A', DR. ANNIE BESANT ROAD, WORLI, BOMBAY-400 018, MAHARASHTRA, INDIA.

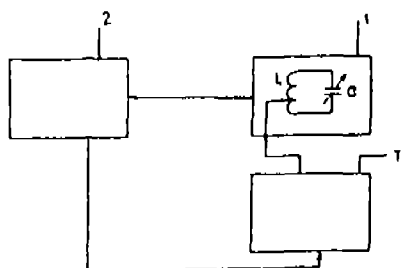
Inventor: PRATINIDHI KRISHNA TRIMBAKRAO.

Application No. 368/Bom/87 filed on December 14, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Bombay-13.

## 2 Claims

An improved electronic frequency tuning circuitry for use in a radio frequency receiving apparatus such as radio or television, the said circuitry comprising a main tuning circuit connected to the local oscillator transistor of the said apparatus and consisting of an inductance and a variable capacitance connected to each other and a fine tuning circuit consisting of a reactance transistor connected to the said inductance and to the said local oscillator transistor.



Compl. Specn. 6 Pages.

Drg. 1 Sheet.

Ind. Cl.: 29 D [XLI(2)]; 67 C [LI(2)]  
Int. Cl.: G 06 F—7/00.

167294

AN APPARATUS FOR FLEXIBLE DATA BASE ACCESS.

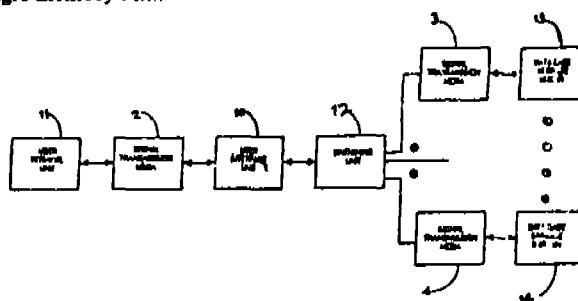
Applicant & Inventor: JAMES HUBERT MASSEY, 1101, LONG BEACH LANE, HOT SPRINGS, ARKANSAS-71913, U.S.A.

Application No. 17/400/88 filed on January 25, 1988

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Bombay-13.

## 6 Claims

Apparatus for flexible data base access to identify and give access to a user of data base processing system adapted to interwet with a system user telephone receiver of telecom system comprises a combination of a telephone receiver forming user terminal unit (11), a signal transmission media (2), a user interface unit (10), a switching unit (12), a plurality of signal transmission media (3 through 4), and a plurality of data base storage units (13 through 14) connected in the manner indicated in block diagram of Fig. 1 wherein said user terminal unit (11) forming a telephone receiver unit exchanging signals with said user interface unit (10) via said signal transmission media (2) which controls said switching unit (12) and gives access on identification of system user to at least one of said plurality of data base storage units (13 through 14) via said signal transmission media (3 through 4) and wherein said data storage units (13 through 14) being located in a single memory unit.



Compl. Specn. 17 Pages.

Drgs. 4 Sheets.

Ind. Cl.: 183 [LXVI(8)]  
Int. Cl.: A 47 G—19/02.

167295

BOWL-SHAPED PLASTIC DISH FOR USE IN MICROWAVE OVENS.

Applicant & Inventor: MANOHAR PALSULE DESAI, IN DEN BARENKAMPEN 40, D-4950, MINDEN/MESTFALEN, WEST GERMANY.

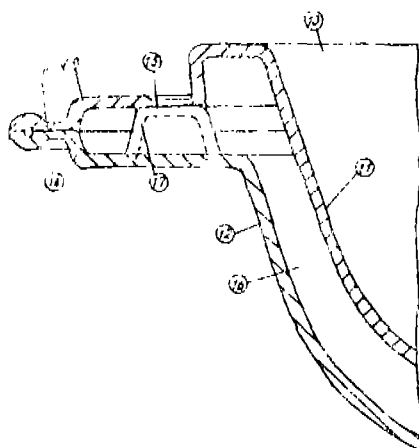
Application No. 33/Bom/88 filed on February 16, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Bombay-13.

## 12 Claims

A Bowl-shaped plastic dish for use in microwave ovens, said dish *inter alia* comprising of an inner shell and an outer shell, each said shell having a circumferential, laterally projecting edge web, said inner and outer shells being spaced from one another to define a

space containing air, and said shells being welded or glued to one another in the region of said webs to seal the air space.



Compl. Specn. 17 Pages

Drgs. 2 Sheets.

Ind. Cl.: 145 E2 + E3 [XXIV (4)]  
Int. Cl.: D 21 C—3/00, 3/02, 11/00.

167296

**AN IMPROVED METHOD FOR DELIGNIFICATION AND PULPING OF LIGNO CELLULOSIC RAW MATERIALS TO RECOVER LIGNIN AND USED CHEMICALS.**

Applicants: PUDUMJEE PULP & PAPER MILLS LTD.,  
TILERGAON CHINCHWAD, PUNE-411 033.

Inventors: (1) DR. RAMKRISHNA GOPAL NAYAK, (2) DR.  
VINAYAK DINANATHI KANOLKAR.

Application No. 49/Bom/88 filed on March 1, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents  
Rules, 1972), Patent Office Branch, Bombay-13.

9 Claims

An improved method for delignification and pulping of ligno-cellulosic raw materials such as herein described to recover lignin and used chemicals which comprises—

- (a) digesting/cooking of said cellulosic raw material with a pulping liquor consisting essentially of a low molecular weight aliphatic alcohol such as herein described and an alkali such as herein described in an amount enough to maintain a near neutral pH, in the presence of a catalyst such as herein described at a temperature between 160°C and 200°C for a period of about 50 minutes to 240 minutes,
- (b) separating the liquor from pulp mass in a known manner such as flashing and steam stripping,
- (c) subjecting the said liquor to distillation to separate out lignin and recover alcohol used in the said method and also reusing the said recovered alcohol in the said method.

Compl. Specn. 17 Pages.

Drgs. 2 Sheets

Ind. Cl.: 40 B [IV (1)]; 32 B [IX(1)]  
Int. Cl.: C 08 F—1/00; B 01 j—11/00.

167297

**A PROCESS FOR THE PREPARATION OF AN IMPROVED CATALYTIC COMPOSITE MATERIAL USEFUL FOR THE ALKYLATION OF TOLUENE WITH METHANOL TO XYLENES.**

Applicants: INDIAN PETROCHEMICALS CORPN. LTD.,  
P.O. PETROCHEMICALS, DISTRICT VADODARA-391 346,  
GUJARAT, INDIA.

Inventors: (1) ANAND BHIMRAO HALGERI, (2) RAMESH  
BALASAHEB BORADE & (3) TURAGA SUNDRA, TAMA  
PRASADA RAO.

Application No. 54/Bom/88 filed on March 7, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents  
Rules, 1972), Patent Office, Branch Bombay-13.

16 Claims

A process for the preparation of a catalytic composite material useful for the alkylation of toluene with methanol to xylenes which comprises forming an aqueous mixture of a compound of silicon such as herein described, a compound of chromium such as herein described, a hydroxide of an alkali metal or of an alkaline earth metal and an alkyl ammonium cation, subjecting the mixture to heat at a temperature in the range of from 140°C to 200°C and a pressure of at least the vapour pressure of water at the said temperature, recovering in any known manner the resulting mixture as a solid, washing said solid, drying it, subjecting the dried mixture to calcination at a temperature in the range of from 400°C to 600°C in a hydrogen-containing atmosphere to ensure that the crystalline chromosilicate within the mixture contains no free chromia and, prior or subsequent to said calcination, subjecting the mixture to ion exchange to control the sodium content thereof by replacing sodium ions with ammonium ions thereby providing a composite of silica, crystalline chromosilicate and oxides of chromium.

Compl. Specn. 24 Pages.

Drg. Nil.

Ind. Cl.: 6 A2 1 + A2 [XLVII(1)]  
Int. Cl.: F 04 B—15/00

167298

**A HYDROGEN PUMP.**

Applicant: LUZ INDUSTRIES ISRAEL LTD., (A REGISTERED CORPORATION) OF HAR HAHOTZVIM, P.O. BOX 7929, JERUSALEM, ISRAEL.

Inventors: (1) YEHUDA HARATS, (2) ISAAC LABATON.

Application No. 75/Bom/88 filed on March 23, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents  
Rules, 1972), Patent Office Branch, Bombay-13.

5 Claims

A hydrogen pump for vacuum insulation jackets for a vessel or a pipe which holds or through which flows a hydrogen-containing medium at temperatures such that hydrogen permeates into said jacket, comprising a palladium or palladium alloy membrane exposed



on one side to an oxidizing atmosphere and on other side to the evacuated space within said jacket, wherein said membrane enables the flow of said hydrogen from said evacuated space through said membrane into said oxidizing atmosphere.

Compl. Specn. 16 Pages.

Drg. 1 Sheet.

Ind. Cl. : 50 D + F-[VII(1)]

167299

Int. Cl. : F 25 D—15/00.

#### AN ICE-LINED REFRIGERATOR

Applicants : VOLTAS LIMITED, 19 J. N. HEREDIA MARG, BALLARD ESTATE, BOMBAY-400 038, MAHARASHTRA, INDIA.

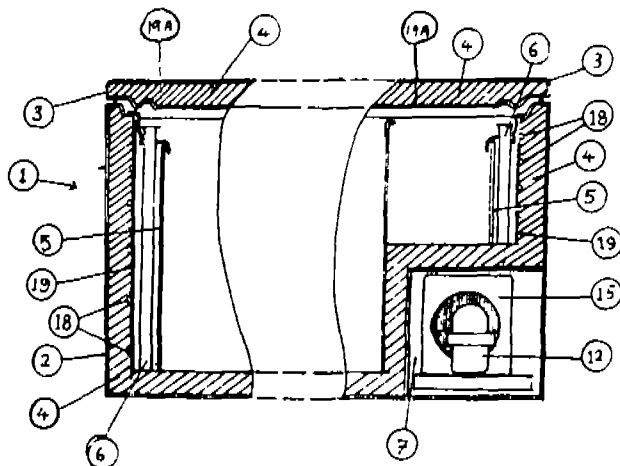
Inventors : (1) RAMAMURTHY SESHU IYER AND (2) LAKSHMI CHANDER GUPTA.

Application No. 112/Bom/88 filed on April 27, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Bombay-13.

#### 16 Claims

An ice-lined refrigerator comprising of a cabinet fitted with a hinged door, an aluminium liner in the form of a container having copper refrigeration tubing rivetted on its outer surface, serving as evaporator of the refrigeration system, provided inside the said cabinet. Keeping an annular gap therebetween which is filled by polyurethane foam heat insulation, a plastic liner being provided inside the said door sandwiching polyurethane foam heat insulation therebetween, a storage container for storing the articles to be refrigerated, provided inside the said evaporator, maintaining a gap therebetween, a plurality of plastic tubes filled with water being provided in the gap between the said storage container and the said evaporator, a compressor, a forced draught air cooled condenser, a drier, a heat exchanger with a cool suction line, a restrictor/capillary connected to the said copper refrigeration tubing, all connected together in a known manner forming the refrigeration system and arrangement being such that on working, the water filled inside the said plastic tubes forms an icelining around the storage container which maintains the desired temperature inside the refrigerator/storage container for a sufficient long time in case of a power failure.



Compl. Specn. 9 Pages

Drg. 2 Sheets.

2—G—267 GI/90.

Ind. Cl. : 80 I [VI]

167300

Int. Cl. : B 01 D—23/04.

#### AN IMPROVED FILTERING DEVICE.

Applicants : KUMAR PROCESS CONSULTANTS & CHEMICALS PVT. LTD., B-406, SHITAL APARTMENTS, CHHAGLA ROAD, VILE PARLE, BOMBAY-400 099, MAHARASHTRA, INDIA.

Inventor : SUDHIR GAJANAN PISAT.

Application No. 302/Bom/88 filed on October 31, 1988.

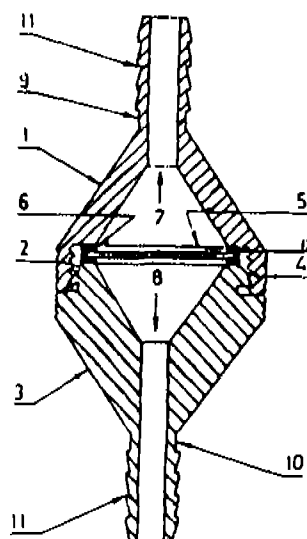
Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Bombay-13.

#### 4 Claims

An improved filtering device comprising :

a first conical funnel member consisting external threads and an inner cavity at its broader end and a tubular extension at its narrower end for connecting to an inlet supply line; said filtering element retained within the said cavity; and

a second conical funnel member consisting internal threads at its broader end for threading onto the said external threads of the first conical funnel member, so as to hold the said filtering element in place, and a tubular extension at its narrower end for connecting to an outlet supply line.



Compl. Specn. 8 Pages.

Drg. 1 Sheet.

Ind. Cl. : 9E.

167301

Int. Cl.<sup>4</sup> : C22C24/00.

PROCESS FOR THE FORMATION OF AN ALLOY COMPOSITION CAPABLE OF REVERSIBLY STORING HYDROGEN.

Applicant : THE STANDARD OIL COMPANY, AN OHIO CORPORATION HAVING A PLACE OF BUSINESS AT PATENT & LICENCE DIVISION, 200 PUBLIC SQUARE, CLEVELAND, OHIO 44114-2375, UNITED STATES OF AMERICA.

Inventor(s) : ROBERT KARL GRASELI, MICHAEL ALAN TENHOVER, AND JONATHAN HENRY HARRIS.

Application for Patent No. 266/Del/86 filed on 21st March, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

## 2 Claims

A process for the formation of an alloy composition capable of reversibly storing hydrogen comprising an amorphous metal alloy of the formula



Wherein a is at least one metal selected from the group consisting of Ag, Au, Hg, Pd, and Pt;

M is at least one metal selected from the group consisting of Pb, Ru, Cu, Cr, Mo, Si, W, Ni, Al, Sn, Co, Fe, Zn, Cd, Ga and Mn; and

M' is at least one metal selected from the group consisting of Ca, Mg, Ti, V, Zr, Hf, Nb, V, Ta, and the rare earths; and wherein a is range from 0.001 to 0.004;

b is range from 0.1 to 0.70; and  
c is range from 0.2 to 0.85;

the total weight of A, M and M' in the composition being unity, the process comprising

(a) mixing in any known manner said M and M' component to produce a metal alloy composition (absent the A component) in the form of a film or powder;

(b) depositing in any known manner A component on one face of the formed composition;

(c) heating the said composition at a temperature below the crystallization temperature of the amorphous metal alloy so as to form said alloy

Compl. Specn. 19 Pages.

Drg. nil.

Ind. Cl. : 9E.

167302

Int. Cl.<sup>4</sup> : C22 C 24/00.

PROCESS FOR THE FORMATION OF AN ALLOY COMPOSITION CAPABLE OF REVERSIBLY STORING HYDROGEN.

Applicant : THE STANDARD OIL COMPANY.

Inventor(s) : RICHARD SCOTT HENDERSON, ROBERT KARL GRASELLI, MICHAEL ALAN TENHOVER, AND JONATHAN HENRY HARRIS.

Application for Patent No. 272/Del/86 filed on 21st March, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

## 6 Claims

A process for the formation of an alloy composition capable of reversibly storing hydrogen comprising at least fifty percent amorphous metal alloy of the formula



wherein A is at least one element selected from the group consisting of Ag, Au, Hg, Pd, and Pt;

M is at least one metal selected from the group consisting of Pb, Ru, Cu, Cr, Mo, Si, W, Ni, Al, Sn, Co, Fe, Zn, Cd, Ga, and Mn;

M' is at least one element selected from the group consisting of Ca, Mg, Ti, Y, Zr, Hf, Nb, V, Ta, and the rare earth metals; and

wherein

a ranges from 0.005 to 0.80;  
b ranges from 0.05 to 0.70; and  
c ranges from 0.08 to 0.95;

the total weight of A, M and M' in composition being unity; wherein said A, M and M' components are disposed in an environment known per se and are heated at a temperature below the crystallization temperature of the alloy to be formed to form the said alloy.

Compl. Specn. 18 Pages.

Drg. nil.

Ind. Cl. : 32 E &amp; 144 B.

167303

Int. Cl.<sup>4</sup> : C 08 G-59/02.

A PROCESS FOR PRODUCING A NON-GELLED AMINE-EPOXIDE REACTION PRODUCT FOR USEFUL IN DIFFERENT COATING COMPOSITIONS

Applicant : IMPERIAL CHEMICAL INDUSTRIES PLC, A BRITISH COMPANY, OF IMPERIAL CHEMICAL HOUSE, MILLBANK, LONDON SW1P3JF, ENGLAND AND DULUX AUSTRALIA LIMITED, AN AUSTRALIAN COMPANY, OF 35 COLLINS STREET, MELBOURNE, VICTORIA 3000, AUSTRALIA.

Inventors : RICHARD PAUL REDMAN, & MICHAEL PAUL BERESFORD.

Application for Patent No. 300/Del/86 filed on 1st April, 1986.

Convention Date April 18, 1985/8509955 & March 17, 1986/8606495/(U.K.).

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

## 7 Claims

Ind. Cl. : 39 L.

167305

A process for producing a non-gelled amine-epoxide reaction product for use in different coating compositions, said process comprises co-reacting the following ingredients;

A a Secondary amine  $\text{NHR}_1\text{R}_2$ , Wherein  $\text{R}_1$  and  $\text{R}_2$  are same or different,  $\text{C}_{1-18}$  alkyl, or cycloalkyl, substituted alkyl or substituted cycloalkyl, or  $\text{R}_1, \text{R}_2$  can represent together with the N atom, a cyclic structure, optionally substituted;

B a polyepoxide;

C a polyoxyalkylene polyamine; and

D a monoxide.

USES —The product of the invention to be applied to a cathodic substrate.

Compl. Specn. 36.

Drg. 1 Sheet.

Int. Cl.<sup>4</sup> : C01F 7/04.

# AN IMPROVED PROCESS FOR THE PRODUCTION OF ALUMINA FROM LOW GRADE & SUBMARGINAL BAUXITE.

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAJ MARG, NEW DELHI-1, INDIA AND INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors : GOPINATH BANERJEE, DIPENDRA NARAYAN AND PRAFULA KUMAR JENA.

Application for the Patent No. 352/Del/86 filed on 21st April 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

## 5 Claims

A process for the production of alumina from low grade and submerged bauxite which comprises crushing, grinding the said bauxite to 100 mesh size, mixing the said properly sized bauxite with soda ash lime stone powder and ground fuels like coke, dust, coal and charcoal, roasting the mixture by burning the solid fuel with air/air-oxygen mixture drawn/sucked through the said mixture, leaching the roasted mass and precipitating hydrated alumina from the leached liquor by known methods, drying the resultant precipitate and calcining it by methods as herein described.

Compl. Specn. 7 Pages.

Drg. Nil.

Ind. Cl. : 32B.

167306

Int. Cl.<sup>4</sup> : C07B 37/00.

# PROCESS FOR THE PRODUCTION OF ALKYLAROMATIC HYDROCARBON.

Applicant : UOP INC., A CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF DELAWARE IN THE UNITED STATES OF AMERICA, WITH ITS PRINCIPAL PLACE OF BUSINESS LOCATED AT TEN UOP PLAZA, ALGONQUIN & MT. PROSPECTS ROAD, DES PLAINES, ILLINOIS 60016, U.S.A.

Inventor : RICHARD RAYMOND DEGRAFF.

Application for Patent No. 376/Del/86 filed on 28th April 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

## 6 Claims

A process for the production of an alkylaromatic hydrocarbon which comprises contacting a feed acyclic  $\text{C}_7\text{-C}_{15}$  olefinic hydrocarbon and a feed aromatic hydrocarbon, benzene or toluene with such as herein described alkylation catalyst in an alkylation reaction zone containing a fixed bed of catalyst maintained at alkylation promoting conditions and producing a reaction zone effluent stream comprising the feed aromatic hydrocarbon, a product alkylaromatic hydrocar

## 8 Claims

A process for simultaneously extracting resin and rubber from guayule plants, comprising the steps of;

adding to the guayule plant at least 50% of a recycled miscella solvent system as herein described to prepared guayule plant material;

extracting in any known manner resin and rubber simultaneously from said guayule plant material and

conducting at least one expression step in a manner as herein described on said remaining treated guayule plant material to extract remaining resin, rubber or both and said recycled miscella.

Compl. Specn. 16 Pages.

Drg. 1 Sheet.

Ind. Cl. : 32 E.

167304

Int. Cl.<sup>4</sup> : C 09 F-1/02.

# PROCESS FOR SIMULTANEOUSLY EXTRACTING RESIN AND RUBBER FROM GUAYULE PLANTS.

Applicant : THE FIRESTONE TIRE & RUBBER COMPANY, A CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF OHIO, UNITED STATES OF AMERICA, OF 1200 FIRESTONE PARKWAY, AKRON, STATE OF OHIO 44317, UNITED STATES OF AMERICA, MANUFACTURES.

Inventors : WILLIAM MAX COLE, STEVEN LEE FENSKE, DAVID JOHN SERBIN, SHIRKANT RAMKISHORE MALANI, FRANK JAMES CLARK, JOANNE LOUISE BEATTIE.

Application for Patent No. 310/Del/86 filed on 3rd April 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

bon and high boiling by-product hydrocarbons and subsequently recovering the product alkylaromatic hydrocarbon by a method which comprises the steps of :

- (a) fractional distillation of a process stream comprising the feed aromatic hydrocarbon, the product alkylaromatic hydrocarbon and the by-product hydrocarbons into a recycle fractionation column operated at fractional distillation conditions such as herein described thereby separating the hydrocarbons into at least a net overhead stream, which is rich in the feed aromatic hydrocarbon, and a first bottoms stream, which comprises the product alkylaromatic hydrocarbon and the by-product hydrocarbons ;
- (b) fractionating the first bottoms stream in a product fractionation column operated at fractional distillation conditions including a pressure at least 103 K Pag greater than that of the stripping column set out below, effective to separate entering hydrocarbons into a first overhead vapor stream, which is substantially free of the by-product hydrocarbons the product alkylaromatic hydrocarbon and a second bottoms stream, which is rich in the product alkylaromatic hydrocarbon and also comprises the by-product hydrocarbons;

(c) at least partially condensing the first overhead vapor stream in a reboiler means supplying heat to a lower portion of the recycle column, withdrawing a first portion in a known manner of the resultant condensate from the process as a net product stream and returning a second portion of the condensate to the product column as reflux liquid;

(d) passing the second bottoms stream into a stripping column operated at fractional distillation conditions including a pressure below 172 K Pag a lower pressure than is maintained in the product fractionation column, and effective to separate entering hydrocarbons into a second overhead vapor stream comprising the product alkylaromatic hydrocarbon and a third bottoms stream, which comprises the by-product hydrocarbons and is substantially free of the product alkylaromatic hydrocarbon; and

(e) compressing the second overhead vapor stream and then passing the second overhead vapor stream into the product fractionation column.

Compl. specn. 15 Pages.

Drg. 1 Sheet

Ind. Cl : 35 C.  
Int. Cl<sup>4</sup> : C04B 7/345.

167307

#### APPARATUS FOR COOLING WHITE CEMENT CLINKER.

Applicant : O & K ORENSTEIN & KOPPEL AKTIENGESELLSCHAFT.

Inventor(s) : JURGEN ALBERS, RUDOLF LANGE, WOLFGANG BETHMANN & GERHARD ZAKEL.

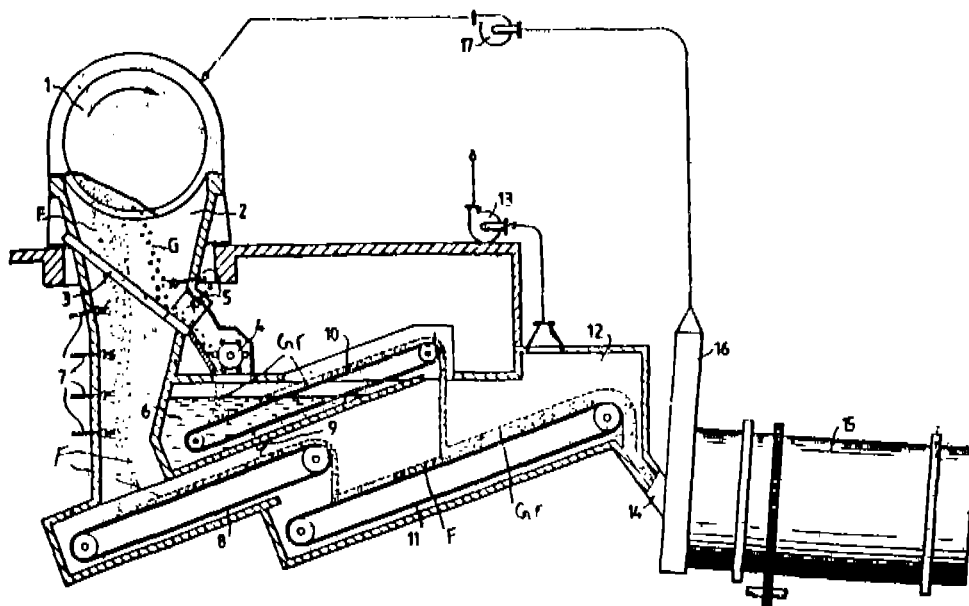
Application for Patent No. 424/Del/86 filed on 13th May, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-5.

5 Claims

Apparatus for cooling white cement clinker, which has been sintered in a rotary kiln (1), said apparatus comprising a classifier (3, 22)

positioned to receive cement clinker from said rotary kiln (1), a comminuting appliance (4) adjacent said classifier (3, 22) to receive and comminute coarse fractions of said cement clinker from said classifier (3, 22), a water bath (6) adjacent said comminuting appliance (4) for receiving comminuted cement clinker, a first conveying means (10) extending out of said water bath for conveying cement clinker out of said bath and passing the clinker to a final cooling unit (15) downstream thereof in communication with said first conveying means (4) Characterized in that said classifier (3, 22) is mounted in upper portion of a fall shaft (2) into which fine fractions of clinker from said classifier (3, 22) fall and are sprayed by liquid spraying means (7) located in said fall shaft (2), a second conveying means (8) located at the bottom of said fall shaft (2) for conveying fine fractions passing through said classifier (3, 22) and said fall shaft (2), said second conveying means transferring said fine fractions to a third conveying means (11) positioned to receive said fine fractions as a lower layer onto which the comminuted coarse fractions coming from the water bath (6) on said first conveying apparatus (10) is deposited as an upper layer.



Compl. Specn. 17 Pages.

Drgs. 2 Sheets.

Int. Cl.<sup>4</sup> : C01C 1/02, C07C 31/04

167308

PROCESS FOR THE PRODUCTION OF DESIRED PRODUCTS SUCH AS AMMONIA AND METHANOL FROM THE FEED GAS STREAMS.

Applicant : UNION CARBIDE CORPORATION, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF NEW YORK, LOCATED AT : OLD RODGEBURY ROAD, DANBURY, STATE OF CONNECTICUT 06817, UNITED STATES OF AMERICA.

Inventor : KISHORE JASRAJ DOSHI.

Application for Patent No. 452/Del/86 filed on 22nd May, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

#### 20 Claims

A process for the production of a desired product such as ammonia and methanol wherein a feed gas stream as hereinafter described is treated to reduce its concentration of a component(s) harmful to a permeable membrane prior to said feed gas stream being contacted with said permeable membrane for the separation of components as herein described useful in said production of said desired product from undesired impurities present therewith, the improvement comprising :

- (a) passing said feed gas stream at an upper adsorption pressure to the feed end of an adsorbent bed in a pressure swing adsorption system capable of selectively adsorbing said harmful component(s) present therein, with unadsorbed useful components of said feed gas stream being withdrawn from the product end of the bed at said upper pressure level as a treated gas stream depleted of said harmful component(s);
- (b) passing said treated gas stream essentially at said upper adsorption pressure to a separator zone containing said gas permeable membrane capable of selectively separating said useful components from said undesired impurities present therewith, the concentration of said harmful component(s) in said treated gas stream being at a desired residual level;
- (c) separately withdrawing the non-permeate and the permeate portions of the treated gas stream from the separator zone, one such portion comprising a purified gas containing said useful components of the feed gas stream, the other such portion containing a substantial amount of the impurities content of said treated gas stream passed to the separator zone;
- (d) passing said purified gas withdrawn from the separator zone for use in the production of said desired product, said purified gas, or a portion thereof, being first recycled to an adsorbent bed in said pressure swing adsorption system at a pressure lower than said upper adsorption pressure as a purge gas to remove said harmful component(s) from the bed wherein said harmful component(s) comprises product gas and/or a desirable reactant(s) in the production of desired product;
- (e) discharging said gas stream containing a substantial amount of impurities to waste or other use as herein

described with said gas stream being recycled to an adsorbent bed in said pressure swing adsorption system at a pressure lower than said upper adsorption pressure as a purge gas to remove said harmful component(s) from the bed where said harmful component(s) does not comprise a desirable reactant(s) in the production of desired product, whereby undesired contact of the permeable membrane with harmful components of said feed gas stream is avoided.

Compl. Specn. 29 Pages

Ind. Cl. : 84C1

167309

Int. Cl.<sup>4</sup> : C10L 9/02.

A PROCESS FOR DESULPHURIZATION OF HIGH SULPHUR COAL.

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAJ MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventor(s) : BIR SAIN, PRADIP CHANDRA SAIKIA, BIMALA PRASAD BARUAH, CHANDRA SHEKHAR SARMAH BORDOLOI, BIMAN MAZUMDER, JITENDRA LAL GHOSE & JOGENDRA NATH BARUAH.

Application for Patent No. 516/Del/86 filed on 12th June 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

#### 7 Claims

A process for the desulphurization of high sulfur coal having 70-85% of the total sulphur present as organic sulfur to the coal having 53-64% organic sulphur which comprises chlorinating the coal by known methods in the presence of an alcoholic solvent, drying/hydrolysing the chlorinated coal at a temperature in the range of 70-86°C with constant stirring and finally dechlorinating the hydrolysed coal by passing stream.

Compl. Specn. 9 Pages.

Drng. nil.

Ind. Cl. : I45 E-[XXIV(4)]

167310

Int. Cl.<sup>4</sup> : D 21 C 3/00.

PROCESS FOR THE DELIGNIFICATION OF CELLULOSIC SUBSTANCES.

Applicant : INTEROX, A BELGIAN COMPANY, OF 33, RUE DU PRINCE ALBERT, B-1050 BRUSSELS, BELGIUM.

Inventor : JOSEF S. GRATZL.

Application No. 648/Del/86 filed on 18th July, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office, Branch New Delhi-110 005.

#### 11 Claims

Process for the delignification of cellulosic substances of the kind described herein characterised in that, in a first stage, the cellulosic substances are treated with an acid, in a second stage the cellulosic substances from the first stage are treated with hydrogen peroxide in an alkaline medium and, in a third stage, the cellulosic substances

from the second stage are subjected to an alkaline digestion in the presence of at least one chemical reactant chosen from hydroxides of alkaline or alkaline earth metals.

Compl. Specn. 15 Pages.

Drg. NIL.

Ind. Cl.: 28-C & 84-A [GROUPS-XXX (1) & XXXII (2)] 167311

Int. Cl.<sup>4</sup>: C 10 J 3/48

**A BURNER USED IN THE MANUFACTURE OF A GAS COMPRISING  $H_2$  AND  $CO$  BY THE PARTIAL OXIDATION OF A CARBONACEOUS SLURRY.**

Applicant: THE DOW CHEMICAL COMPANY, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, U.S.A., OF 2030, DOW CENTER, ABBOTT ROAD, MIDLAND, MICHIGAN 48640, U.S.A.

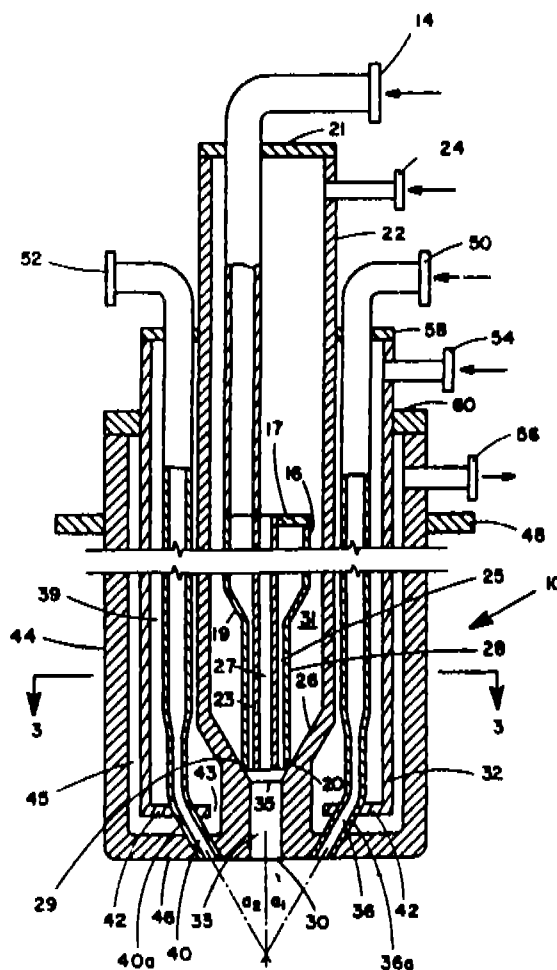
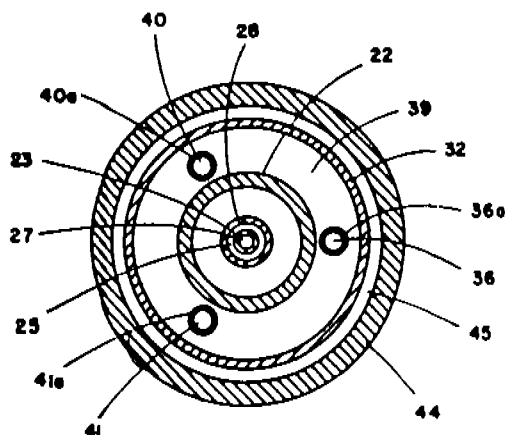
Inventors: (1) CHARLES W. LIPP, (2) DOUGLAS D. MERRICK, (3) RICHARD A. LEE.

Application No. 255/Maa/86 filed on April 7, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 6 Claims

A burner used in the manufacture of a gas comprising  $H_2$  and  $CO$  by the partial oxidation of a carbonaceous slurry comprising hollow cylindrical central conduit having fluid feed means at its distal end and an opening at its proximate end; at least one annular conduit coaxial with and circumscribing at least a portion of the length of said central conduit, said annular conduit having fluid feed means at its distal end and an opening at its proximate end; a hollow cylindrical acceleration conduit having a cross-sectional area less than the combined cross-sectional areas of said central conduit and said annular conduit and having at its proximate end, an opening located on the outside face of said burner; a frusto-conical surface connecting the distal end of said acceleration conduit at its apex and the proximate end at the outer side of said annular conduit at its base; and at least one gas conduit which is in fluid communication with a port located on the outside face of said burner.



Compl. Specn. 34 Pages.

Drgs. 3 Sheets.

Ind. Cl.: 63-I & 98-I [GROUPS-LVII (1) & VII (2)]  
Int. Cl.<sup>4</sup>: H 02 K 44/24

167312

#### A MAGNETOHYDRODYNAMIC GENERATOR.

Applicant & Inventor: GARRETT MICHAEL SAINSBURY, AN AUSTRALIAN CITIZEN, OF 10 WARATAH AVENUE, DALKEITH, IN THE STATE OF WESTERN AUSTRALIA, COMMONWEALTH OF AUSTRALIA.

Application No. 279/Maa/86 filed on April 16, 1986.

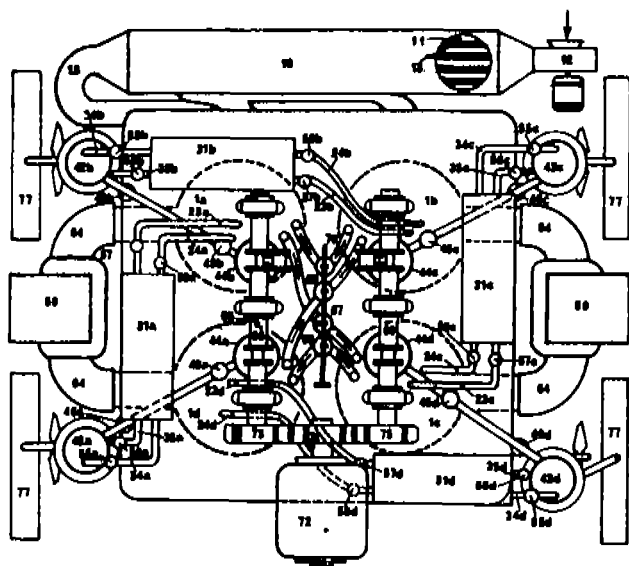
Convention date April 17, 1985; (No. PH 00178; Australia).

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 16 Claims

A magnetohydrodynamic generator comprising a pair of primary chambers containing a quantity of conducting fluid which is a liquid

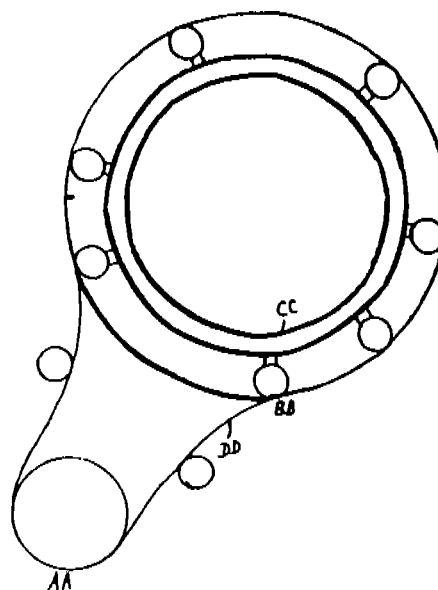
metal, a heat source for heating the primary chambers; wherein the primary chambers are inter-connected at their lower ends by a channel incorporating a magnetohydrodynamic cell, each primary chamber being connected to a separate source of an inert gaseous working fluid through a heat regenerator and injection means, for injecting said working fluid alternately into one or the other primary chamber at an intermediate position spaced from the lower end and below the level of the conducting fluid; a control means for controlling the flow of said working fluid to and from the primary chamber and for commencing the injection of the working fluid through the injection means when the level of conducting fluid in the respective primary chamber approached its maximum during the descent of that level and said working fluid is simultaneously exhausted from either of the primary chambers above the level of the conducting fluid; and heat recovery means to cool and compress the exhausted working fluid for subsequent reinjection into either of the primary chambers; wherein said working fluid prior to its injection into the primary chamber is heated from the heat extracted from said heat recovery means and said heat regenerator.



Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 7 Claims

A yarn feeding mechanism for a circular fabric machine comprising a variable diameter quality wheel having a top disc with a spiral groove, a bottom disc with radial grooves, segments with pins, the segments being located between the top and bottom discs with the said pins engaging with the said grooves, the said discs being fastenable together by a nut; and a plurality of feed wheels to which yarn from a storage source is fed, the said segments being spring-loaded to maintain them substantially vibration-free in position between the said discs; and each feed wheel being provided with a feed pulley attached thereto and coupled by a drive to the variable diameter quality wheel, the lateral profile of each feed wheel having a substantially concave or tapering configuration, the yarn from said source being wrapped around the said profile of each feed wheel to provide a secondary yarn storage source.



Compl. Specn. 26 Pages.

Drgs. 8 Sheets.

Provn. Specn. 9 Pages.  
Compl. Specn. 14 Pages.

Drgs. 7 Sheets.  
Drgs. NIL.

Ind. Cl. : 172-D1-[GROUP-XX]  
Int. Cl.<sup>4</sup> : D 04 B 9/44

167313

**A YARN FEEDING MECHANISM FOR A CIRCULAR FABRIC MACHINE.**

Applicants & Inventors : (1) KANDASWAMY VENKATACHALAM RAMACHANDRAN, (2) DR. VENKATACHALAM RAMACHANDRAN SIVAKUMAR, (3) VENKATACHALAM RAMACHANDRAN KUMARAVEL AND (4) MISS VENKATACHALAM RAMACHANDRAN SHANTHI, ALL OF RATHNATEX, 221, RACE COURSE, COIMBATORE-641 018, TAMIL NADU, INDIA, ALL INDIAN NATIONALS.

Application and Provisional Specification No. 324/Maa/86 filed on April 29, 1986.

Complete Specification left April 8, 1987.

Ind. Cl. : 110-[GROUP-XXI (2)]  
Int. Cl.<sup>4</sup> : D 04 B 9/44.

167314

**A MAIN DRIVE SYSTEM FOR A CIRCULAR KNITTING MACHINE.**

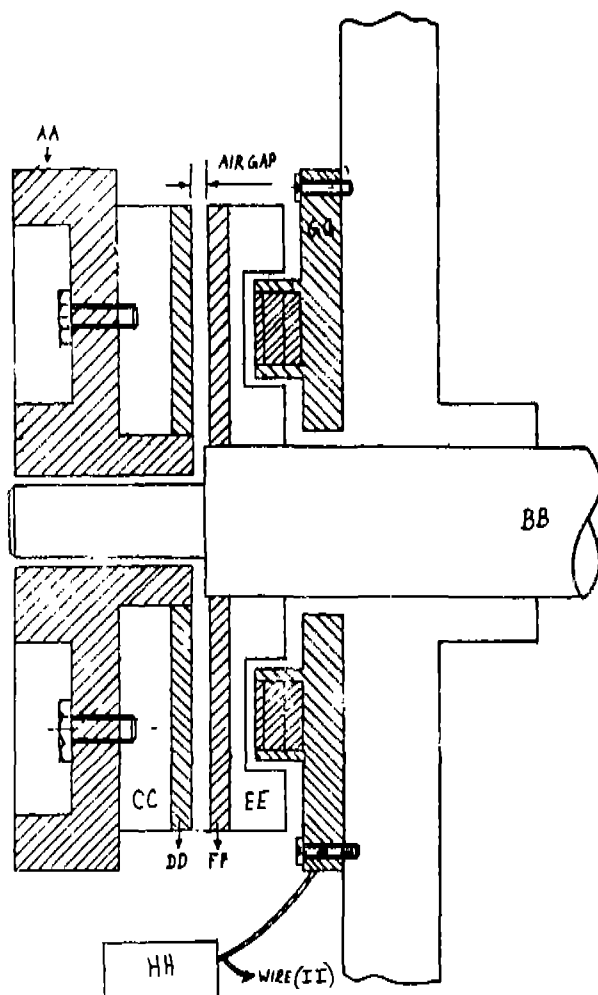
Applicants & Inventors : (1) KANDASWAMY VENKATACHALAM RAMACHANDRAN, (2) DR. VENKATACHALAM RAMACHANDRAN SIVAKUMAR, (3) VENKATACHALAM RAMACHANDRAN KUMARAVEL AND (4) MISS VENKATACHALAM RAMACHANDRAN SHANTHI, ALL OF RATHNATEX, 221 RACE COURSE, COIMBATORE-641 018, TAMIL NADU, INDIA, ALL INDIAN NATIONALS.

Application No. 325/Maa/86 filed on April 29, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 2 Claims

A main drive system for a circular knitting machine having a main drive pulley loosely mounted on a main drive shaft; a magnetic clutch comprising an armature plate fixed to the main drive pulley, the armature plate being provided with a first friction disc; a rotor fixed to the main drive shaft; a second friction disc fixed to the rotor and disposed adjacent to, and spaced from, the first friction disc; a stator receiving electric power from a source through an ON/OFF switch and an INCH switch, whereby whenever the stator is energised by either of the said switches, the armature plate is magnetically drawn towards the said stator, to engage the first friction disc with the second friction disc and thus couple the main drive pulley to the main drive shaft through the rotor.



Compl. Specn. 10 Pages.

Drgs. 2 Sheets.

Ind. Cl.: 42-C-[GROUP-XVI]  
Int. Cl.<sup>4</sup>: A 24 B 15/16.

167315

**A NICOTINE DISPENSER FOR NON-PYROLYTIC USE AND A METHOD FOR MAKING THE SAME.**

Applicant: PHARMACIA LEO INC., A CORPORATION ORGANISED AND EXISTING ACCORDING TO THE LAWS OF NEW JERSEY OF 800 CENTENNIAL AVE., PISCATAWAY, NEW JERSEY 08854, U.S.A.

Inventors: (1) JON PHILIP RAY, (2) JAMES E. TURNER, (3) MICHAEL P. ELLIS, (4) RONALD G. OLDHAM, (5) IRA D. HILL.

Application No. 331/Maa/86 filed on April 29, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 15 Claims

A nicotine dispenser for non-pyrolytic use, adapted to release nicotine-bearing vapor into air drawn through the dispenser, said dispenser comprising:

- (a) an elongated housing, said housing defining a passageway for air through the dispenser; and
- (b) interposed in the passageway, at least one porous plug comprising a first polymeric substance, the first polymeric substance consisting essentially of a polyolefin being able to absorptively and reversibly retain and release nicotine.

Compl. Specn. 33 Pages.

Drg. 1 Sheet.

Ind. Cl.: 172-B & Dr-[GROUP-XX]  
Int. Cl.<sup>4</sup>: D 01 D 5/16; D 01 H 1/12; 1/243.

167316

**METHOD AND DEVICE FOR SPINNING A YARN IN ACCORDANCE WITH THE OPEN END-FRICTION SPINNING PRINCIPLE.**

Applicant: MASCHINENFABRIK RIETER AG, A BODY CORPORATE ORGANISED UNDER THE LAWS OF SWITZERLAND, OF CH-8406, WINTERTHUR, SWITZERLAND.

Inventors: (1) HERBERT STÄLDER, (2) JOSEF BAUMGARTNER, (3) ARTHUR WURMLI.

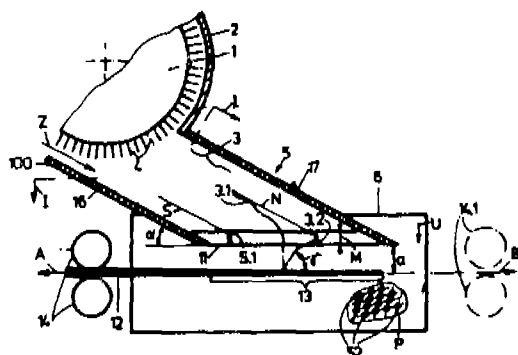
Application No. 336/Maa/86 filed on April 30, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 29 Claims

Method for spinning a yarn in accordance with the open end-friction spinning principle, in which fibres (3) are separated from a body of fibres (not shown), and are transported in a freely floating condition by means of a pneumatic fibre transporting airstream (S) guided in a transport passage (5; 5.1) in a direction of movement (N) inclined at a predetermined acute angle ( $\alpha$ ) to the opening (11) of the transport passage (5; 5.1), and thereafter are transferred to a moving, perforated surface of a friction spinning means (6; 30) which is subjected to pressure in order to take up transporting airstream, the said perforated surface permitting the transporting airstream to pass through it, by means of which the fibres are formed to a yarn at a so-called yarn formation position (13), the yarn (12) finally being withdrawn in a predetermined direction (a; b), wherein the transporting airstream is additionally accelerated in a predetermined region which ends at the opening (11) and has a predetermined height (M).





Compl. Specn. 22 Pages.

Drgs. 5 Sheets.

Ind. Cl. : 32-E-[GROUP-IX (1)]  
Int. Cl.<sup>4</sup> : C 08 F 136/06.

167317

**A PROCESS FOR CATALYTICALLY PREPARING 1, 4-CIS POLYBUTADIENE.**

Applicant : ENICHEM ELASTOMERI S.p.A., A COMPANY ORGANISED UNDER LAW OF THE ITALIAN REPUBLIC, OF VIA RUGGERO SETTIMO, 55-90139 PALERMO, ITALY.

Inventors : (1) ANTONIO CARBONARO, (2) SILVANO GORDINI, (3) SALVATORE CUCINELLA.

Application No. 338/Maa/86 filed on May 1, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**16 Claims**

A process for catalytically preparing 1, 4-cis polybutadiene in the absence or substantial absence of solvents or diluents by the agency of a catalyst system dissolved in a hydrocarbon medium and consisting of:

- (a) at least one neodymium compound;
- (b) at least one organic hydroxyl-containing and/or carboxyl containing compound;
- (c) at least one organic or inorganic halide or a halogen; and
- (d) at least one aluminium organometallic compound, the quantities of the catalyst system components (a) and (b) providing a ratio of the total hydroxyl groups and/or carboxyl groups to the neodymium atoms of from 2 : 1 to 80 : 1, an Al/Nd ratio of from 20 : 1 to 80 : 1 and a halogen: neodymium ratio of from 0.2 : 1 to 3 : 1, the catalyst system being used in an amount of 1 gram atom of Nd per 10,000 to 400,000 mols of butadiene monomer, in at least one stirred reactor or in a 'plug-flow' reactor, the temperature being controlled through partial evaporation of butadiene the polymerization run being continued until the degree of polymerization is from 25% to 70% by weight, whereafter the as-obtained 1, 4-cis butadiene is recovered from the discharged polymer mass, wherein the polymerization run is carried out in two stages, the first of which is performed at a temperature of from 0°C to 30°C

3—G—267 GI/90.

under a pressure of less than 3.5 bar abs., and the second stage is performed at a temperature of from 50°C to 90°C under a pressure of from 3.4 bar abs., to 18 bar abs. for a total residence time for both the polymerization stages of from 10 min to 120 min.

Compl. Specn. 22 Pages.

Ind. Cl. : 171-[GROUP-XXXVIII (4)]  
Int. Cl.<sup>4</sup> : B 29 D 11/00.

167318

**A PROCESS FOR PREPARING A DIALLYL-CARBONATE AND DIETHYLENE-GLYCOL-BASED OPTICAL-GLASS SUBSTITUTE.**

Applicant : ENICHEM SINTESI S.p.A., A COMPANY ORGANIZED UNDER THE LAW OF THE ITALIAN REPUBLIC OF VIA RUGGERO SETTIMO, 55 90139 PALERMO, ITALY.

Inventors : (1) FIORENZO RENZI, (2) FRANCO RIVETTI, (3) UGO ROMANO, (3) CLAUDIO GAGLIARDI.

Application No. 340/Maa/86 filed on May 1, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**10 Claims**

A process for preparing a diallyl-carbonate and diethylene-glycol-based optical-glass substitute by casting, comprising the steps of:

combining the following components into a polymerizable composition,

from 10 to 50% by weight of component (A) which is a monomer product of a reaction between diallylcarbonate and diethyleneglycol in a molar ratio of about 12 : 1;

from 20 to 70% by weight of component (B) which is an oligomer product of a reaction between diallylcarbonate and diethyleneglycol in a molar ratio of about 2 : 1, said oligomer product being defined by the following formula :



wherein R is the radical of diethylene glycol and n has a value, or an average value, of from 2 to 5;

from 5 to 50% by weight of component (C) which is a monomer product of tris (hydroxyethyl) isocyanurate tris (allylcarbonate) resulting from a reaction of diallylcarbonate with tris (hydroxyethyl) isocyanurate in a molar ratio of higher than about 10 : 1, and

a free-radical initiator in an amount of from 1 to 6% by weight relative to the total weight of said (A), (B) and (C) components;

pouring said polymerizable composition into moulds shaped corresponding to an article which is to be manufactured;

maintaining said polymerizable composition at a temperature lower than the decomposition temperature of said free-radical initiator; and

polymerizing said polymerizable composition at a temperature of from 30° to 120°C for a timer period of from 3 to 100 hours and obtaining the optical-glass substitute.

Compl. Specn. 21 Pages.

Drg. 1 Sheet.

Ind. Cl. : 136-E-[GROUP-XIII]

167319

Int. Cl.<sup>4</sup> : B 29 C 65/06.**SPIN-WELDING APPARATUS.**

Applicant: METAL BOX p.l.c., A COMPANY INCORPORATED UNDER THE LAWS OF GREAT BRITAIN, OF QUEENS HOUSE, FORBURY ROAD, READING RG1 3JH, BERKSHIRE, ENGLAND

Inventors : (1) KENNETH ROBERT CLARK, (2) JOHN PAWEL BILKO.

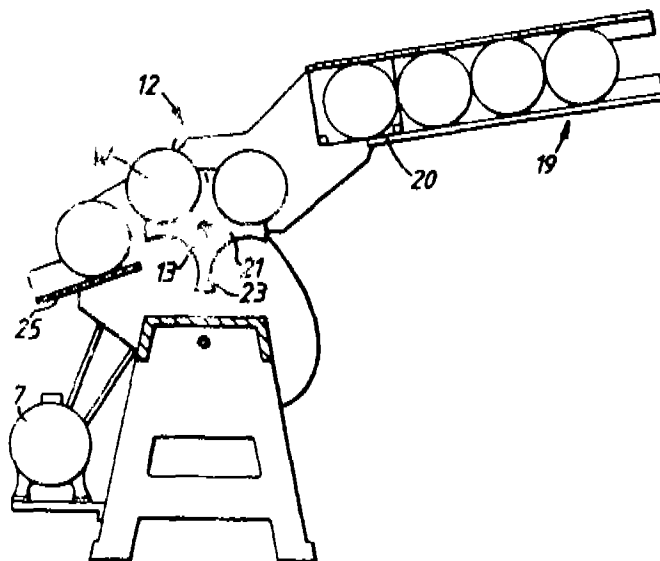
Application No. 378/Maa/86 filed on May 15, 1986.

Convention date May 24, 1985; (No. 8513240; Great Britain).

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**8 Claims**

Spin welding apparatus for welding together two parts of an article comprising a feed mechanism for successively feeding preassembled articles to a work station on the apparatus, a spin welding head for spinning one of the parts relative to the other at the work station to form a weld, and a ram assembly for moving articles at the work station into engagement with the spin welding head, wherein the feed mechanism and the ram assembly are driven in timed relation from a first motor-driven shaft and wherein the spin welding head is driven by a servo motor the drive of which is timed by a switch unit driven from the first shaft.



Compl. Specn. 21 Pages.

Drgs. 7 Sheets.

Ind. Class : 136-E—[GROUP-XIII]

167320

Int. Cl.<sup>4</sup> : B 29 C 65/06**SPIN-WELDING APPARATUS**

Applicant: METAL BOX p. l. c., A COMPANY INCORPORATED UNDER THE LAWS OF GREAT BRITAIN, OF QUEENS HOUSE, FORBURY ROAD, READING RG 1 3JH, BERKSHIRE, ENGLAND.

Inventors : (1) KEITH EDWARD NUTTALL, (2) KENNETH ROBERT CLARK.

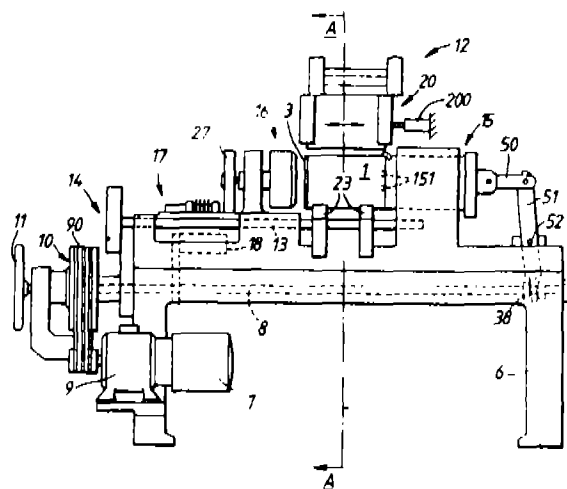
Application No. 379/Maa/86 filed May 15, 1986.

Convention date : May 24, 1985;  
(No. 8513240; Great Britain)

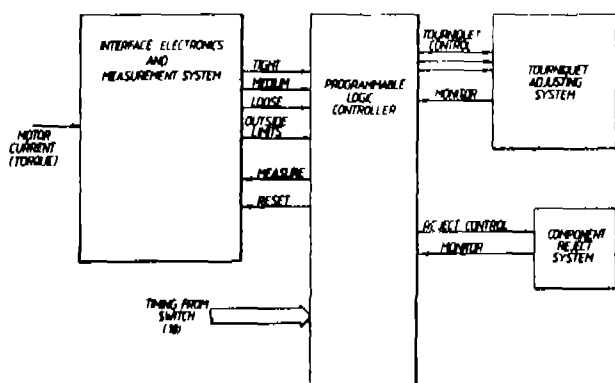
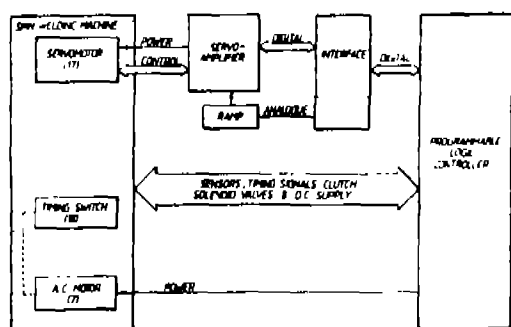
Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**4 Claims**

Spin welding apparatus for welding together opposed surfaces of thermoplastics components which are assembled together prior to welding, comprising a spin welding head for spinning one of the components relative to the other and a low inertia DC servo motor for driving the spin welding head, wherein the drive of the servo motor is governed by a programmable logic controller programmed to provide



initial slow speed spinning to ensure correct take-up of drive to the components, rapid acceleration to weld process speed, maintenance of process speed for a required period, and final rapid deceleration and stopping of the motor.



Com. 18 Pages;

Drwgs. 7 Sheets.

Ind. Class : 198-B—[GROUP-XXXIV(5)]  
Int. Cl. 4 : B 03 D 1/00

167321

#### A PROCESS FOR RECOVERING OF NON-SULFIDIC MINERALS FROM AN ORE BY FLOTATION

Applicant: HENKEL KOMMANDITGESELLSCHAFT AUF AKTIEN, HENKELSTRASSE 67, DUSSELDORF, DEUTSCHLAND, A COMPANY ORGANIZED AND EXISTING UNDER THE LAWS OF THE FEDERAL REPUBLIC OF GERMANY.

Inventors: (1) DR. WOLFGANG VON RYBINSKI, (2) DR. MANFRED BIERMANN, (3) DR. HERALD SCHNEGELBERGER, (4) RITA HOSTER.

Application No. 389/Mas/86 filed May 20, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

8 Claims

A process for recovering of non-sulfidic minerals from an ore by flotation in which

(A) a ground ore is mixed with water to form an ore suspension,

(B) a collector is added to the resulting suspension,

(C) air is introduced into the suspension and

(D) the foam formed is separated off together with the mineral therein,

characterized in that

(I) alkyl and/or alkenyl glycosides or

(II) a mixture of

(a) at least one alkyl or alkenyl glycoside and

(b) at least one anionic, cationic or ampholytic surfactant are added as collectors in quantities of from 20 to 2000 g per metric ton crude ore.

Com. 29 Pages:

Drwgs. 2 Sheets.

Ind. Class : 94-I—[GROUP-XXXIII(4)]  
Int. Cl. 4 : B 02 C 4/02

167322

#### MILLING APPARATUS

Applicant: MITACHI ZOSEN CORPORATION, OF 6-14, EDOBORI 1-CHOME, NISHI-KU, OSAKA, JAPAN, A COMPANY INCORPORATED UNDER THE LAWS OF JAPAN.

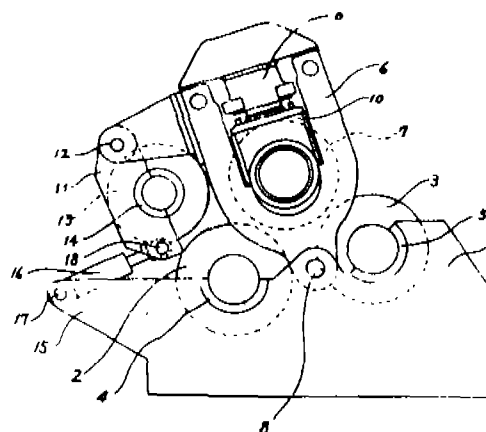
Inventors: (1) HIROKAZU TANAKA, (2) TAKAAKI FUKUSHIMA.

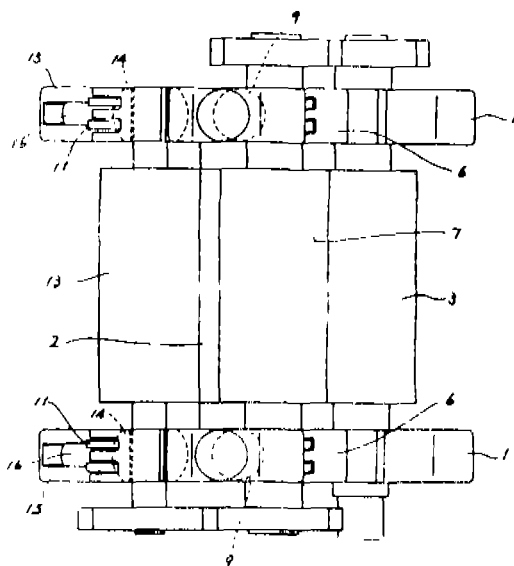
Application No. 428/Mas/86 filed May 30, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

14 Claims

A milling apparatus comprising a pair of lower housings for supporting the opposite ends of a feed roll and a bagasse roll which are disposed side by side, a pair of upper housings, swingably connected at their lower ends to the said lower housings, for supporting the opposite ends of a top roll which is parallel to said two rolls, a pre-roll disposed parallel to said top roll between the material feed sides of said two upper housings and supported by said two upper housings through spherical bearings, and a pair of cylinder devices for urging said two spherical bearings towards said top roll.





Com. 18 Pages;

Drwgs. 9 Sheets.

Ind. Class : 6B<sub>1</sub> & 167-C—[GROUPS-XLVII (1) & XXXIV(4)]

167323

Int. Cl.<sup>4</sup> : B 01 D 45/14**SEPARATOR FOR SORTING PARTICULATE MATERIAL**

Applicant : F L SMIDTH & CO. A/S, A DANISH COMPANY,  
OF 77 VIGERSLEV ALLE, DK-2500 VALBY, COPENHAGEN,  
DENMARK.

Inventor : JAN FOLSBERG

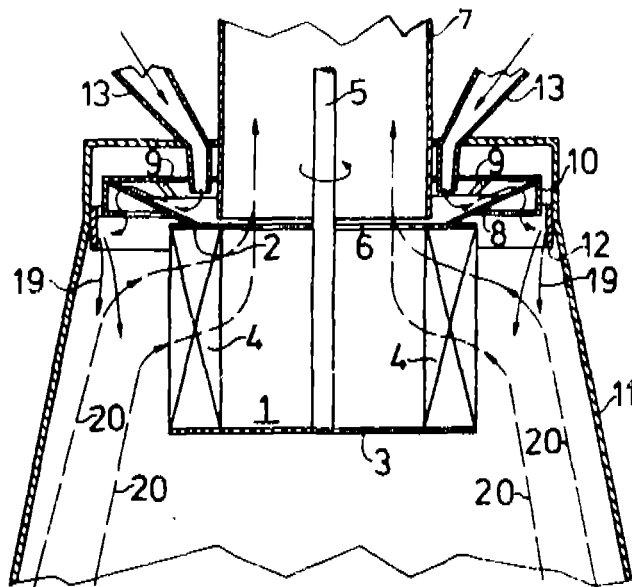
Application No. 439/Mas/86 filed June 6, 1986.

Convention date : July 23, 1985;  
(No. 8518536; Great Britain)

Appropriate Office for Opposition Proceedings (Rule 4, Patents  
Rules, 1972), Patent Office, Madras Branch.

**6 Claims**

A separator for sorting particulate material suspended in a conveying gas into a fine fraction and a coarse fraction, the separator comprising a vaned rotor rotatable about a substantially vertical axis, the vanes extending between a bottom plate and a top plate of the rotor, the top plate having a distributing arrangement for distributing supplied, unsorted material to the rotor so as to suspend the material in the conveying gas, and a housing encasing the rotor and having an inlet for supply of the conveying gas to the rotor, an outlet from the upper end of the rotor for discharge of the separated fine fraction, at least one inlet for supply of unsorted particulate material to the upper side of the rotor top plate and an impact ring positioned around and at a radial distance from the top plate, characterized by an annular collecting casing secured to and coaxial with the top plate and at a radial distance from the material inlet, the casing having a concave side facing the top plate for collecting the material flung outwards from the top plate and for discharging the material downwards.



Com. 9 Pages;

Drwg. 1 Sheet.

Ind. Class : 28-C &amp; 85-J—[GROUPS-XXX(I) &amp; XXXI]

167324

Int. Cl.<sup>4</sup> : B 01 J 8/24; 8/44**A DEVICE FOR CONTROLLING THE SUPPLY OF FLUIDIZING GAS FOR A FLUIDIZING GRATING**

Applicant : CHARBONNAGES DE FRANCE (ESTABLISHMENT PUBLIC), OF 9, AVENUE PERCIER, 75008, PARIS, FRANCE, A FRENCH COMPANY.

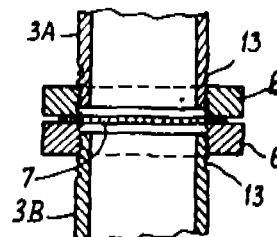
Inventors : (1) DELEBARRE ARNAUD, (2) KONTUTA ALAIN,  
(3) MAISSA PHILIPPE.

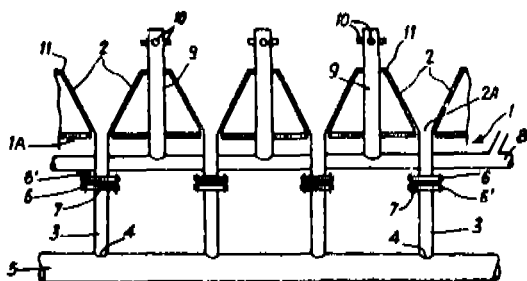
Application No. 450/Mas/86 filed June 11, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents  
Rules, 1972), Patent Office, Madras Branch.

**6 Claims**

A device for controlling the supply of fluidizing gas to a fluidizing grating intended for supporting a bed of particles to be fluidized, the said grating having numerous blowing orifices (2A), each communicating through a pipe (3) with a conduit (5) allowing fluidizing gas of specific amount to pass through the cross-section of a passage, each of the blowing orifices (2A) being provided with a semi-permeable element (7) on its respective communicating pipe and each of said permeable element (7) having apertures (14) for allowing the fluidizing gas to pass through said semi-permeable element and stopping at least a substantial fraction of the particles when the fluidization is stopped, wherein the ratio between the passage area through the said apertures and the total area of the said cross-section being in the range 0.30 to 0.60.





Com. 15 Pages;

Drwg. 1 Sheet.

Ind. Class : 48-A<sub>1</sub> —[GROUP-LVIII(3)]  
 Int. Cl. 4 : II 01 B 17/60

167325

## ELECTRICAL INSULATING TUBE

Applicant : MASCHINENFABRIK REINHARDT GmbH, OF FALKENSTEINSTRASSE 8, 8400 REGENSBURG, FEDERAL REPUBLIC OF GERMANY, A KOMMANDITGESELLSCHAFT ORGANISED UNDER THE LAWS OF THE FEDERAL REPUBLIC OF GERMANY.

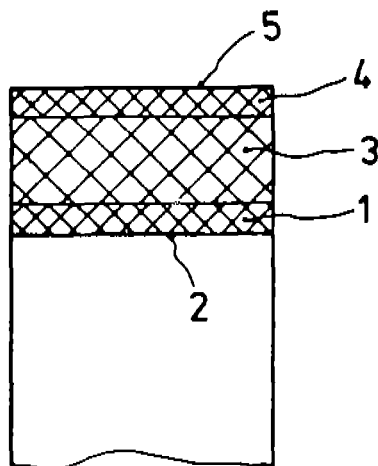
Inventor : ALEXANDER BLEIBTREU

Application No. 741/Mas/86 filed September 19, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 2 Claims

An electrically insulating tube with a wall comprising an inner layer which is formed by a wound strip of polyester fleece material and which defines the inner surface of the wall, an intermediate layer of glass rovings surrounding the inner layer, and an outer layer which is formed by wound polyester rovings surrounding the intermediate layer and which defines the outer surface of the wall.



Com. 5 Pages;

Drwg. 1 Sheet.

Ind. Class : 107-I—[GROUP-XLVI(2)]  
 Int. Cl. 4 : F 02 M 15/00

167326

## A DEVICE FOR INCREASING THE FUEL COMBUSTION EFFICIENCY OF AN I. C. ENGINE

Applicant & Inventor : ARCOT JANAKIRAM LOGANATHAN, 38 ST. JOHN'S ROAD, BANGALORE-560 004, KARNATAKA, INDIAN NATIONAL.

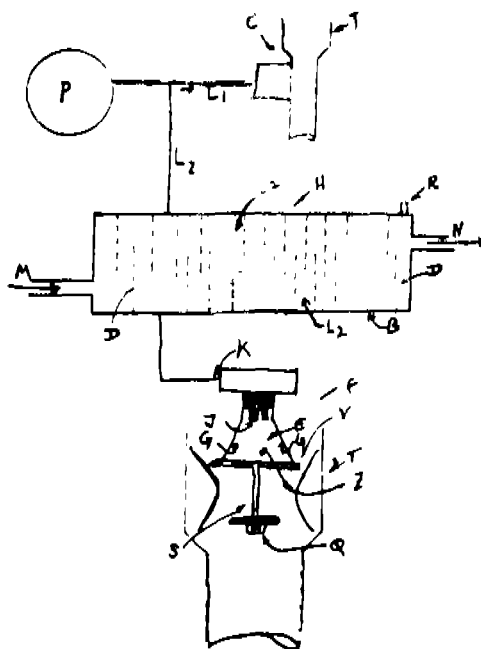
Application and Provisional Specification No. 768/Mas/86 filed September 29, 1986.

Complete Specification left on 8th January, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch

## 7 Claims

A device for increasing the fuel combustion efficiency of an I. C. engine comprising a fuel pump having first and second fuel outlet lines; a carburettor with an idling jet but without a main jet, the first fuel outlet line being connected to the carburettor; a heat exchanger with its inlet connected to the exhaust gas line of the engine, the outlet of the exchanger being open to atmosphere, the second fuel outlet line passing through the exchanger to heat the fuel therein out of contact with air; a flapper valve unit accommodated in the throat of the carburettor, the said unit comprising a chamber incorporating a detachable jet, the inlet of said chamber being connected to the outlet of the second fuel line leaving the exchanger and the outlet of said chamber being normally closed by a suction operable spring-loaded valve, whereby at idling speed or low speed the throttle openings the carburettor lets in air-liquid fuel spray into the engine through the idling jet, but at higher speed throttle openings the valve of the said unit opens letting in air-gasified fuel from the chamber through the detachable jet and heat exchanger into the engine.



Pro. 9 Pages;

Drwg. 1 Sheet.

Com. 11 Pages;

Drwg. 1 Sheet.

Ind. Class : 32-A<sub>2</sub>—[GROUP-IX(1)]  
 Int. Cl. 4 : C 09 B 5/48

167327

# A PROCESS FOR PREPARING CHLORINATION PRODUCT OF DIANTHRAQUINONE-N, N'-DIHYDRAZINE

Applicant: MISTUI TOATSU CHEMICALS INC., A JAPANESE BODY CORPORATE OF 2-5, 3-CHOME, KASUMIGASEKI, CHIYODA-KU, TOKYO, JAPAN.

Inventors: (1) KIMITOSHI KATO, (2) HIROSHI AIGA, (3) TAMIO MIKODA, (4) TUNEHIRO SAKAI.

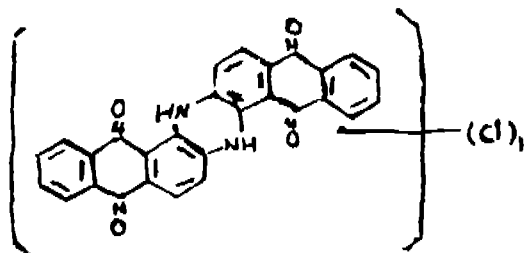
Application No. 349/Mas/87 filed May 12, 1987.

Divisional to Patent No. 161432; (435/MAS/84); Ante-dated to June 14, 1984.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 2 Claims

A process for preparing chlorination product of dianthraquinone-N, N'-dihydrazine which comprises condensing 1-aminoanthraquinone at a temperature of 80-150°C using a known oxidizing agent and an alkali condensation agent in the presence of 1, 3-dimethyl-2-imidazolidinone, separating the resulting condensation product, chlorinating this condensation product in sulfuric acid as a solvent, and recovering the chlorination product in a known manner.



Com. 19 Pages;

Drwg. 1 Sheet.

Ind. Class : 128-B—[GROUP-XIX(2)]

167328

Int. Cl.4 : A 47 C 19/04

# A MODERN RELIEF COT

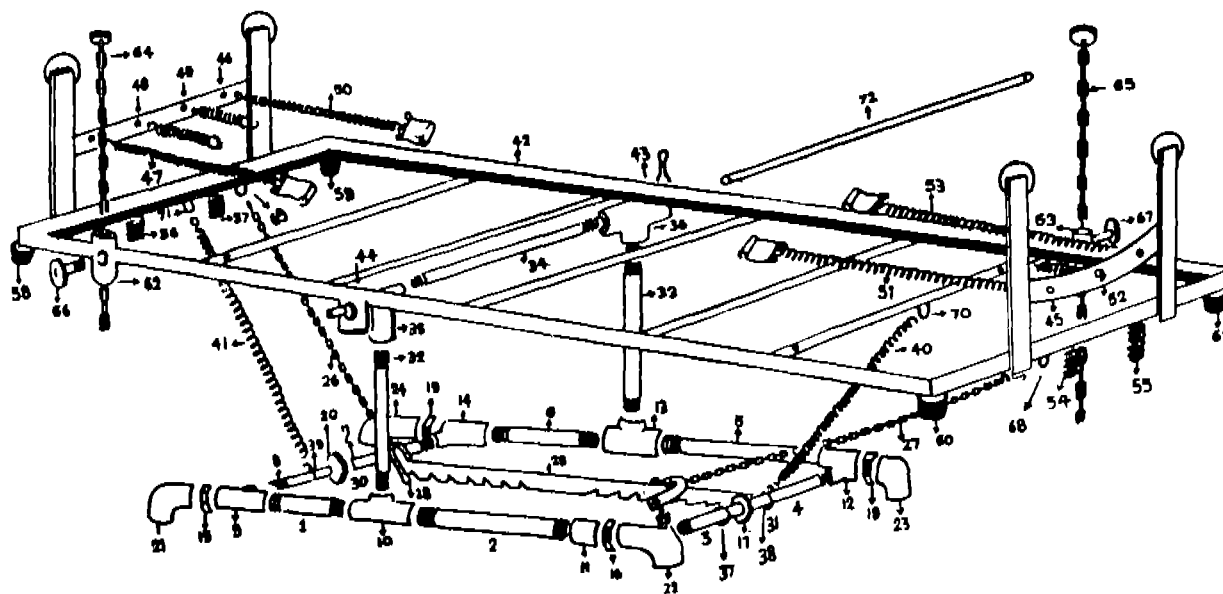
Applicant & Inventor: APPAN PARAMBATHI ABOO-BACKER, MODERN RESEARCH & ENTERPRISES, ATHINHAL, (PO) MANIKKOTI, KANNIANGAD, PIN : 670329, KASARAGOD DISTRICT, KERALA, INDIA, AN INDIAN NATIONAL.

Application No. 410/Mas/87 filed June 4, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 7 Claims

A Modern Relief Cot Having four sides with angular bars centered in the middle and connected with two upright pipes which inturn connected to the base and provided with plank on top, comprising locking means to lock the cot in the required inclination by means of hook and rack arrangement, measuring means to measure the required load on the limbs with the help of scales fixed on the cot and the spring tension, exercising means provided with a spring with handle which is fixed with the hooks on the top and bottom of the angular bar, fastening means to fasten the required limbs with soft belts hook and spring arrangements to the required traction on the different limbs of the body in orthopaedic treatment.



Com. 8 Pages;

Drwgs. 2 Sheets

Ind. Class : 107-H & G—[GROUP-XLVI-(2)]  
Int. Cl.<sup>4</sup> : F 02 M 59/44; 59/46

167329

### A VALVE PLATE ASSEMBLY FOR THE FUEL PUMP OF A MOTOR VEHICLE

Applicant : CARBURETTORS LIMITED, 118, ANNA SALAI, MADRAS-600 002, TAMIL NADU, INDIA, A COMPANY DULY ORGANISED AND EXISTING UNDER THE LAWS OF THE UNION OF INDIA.

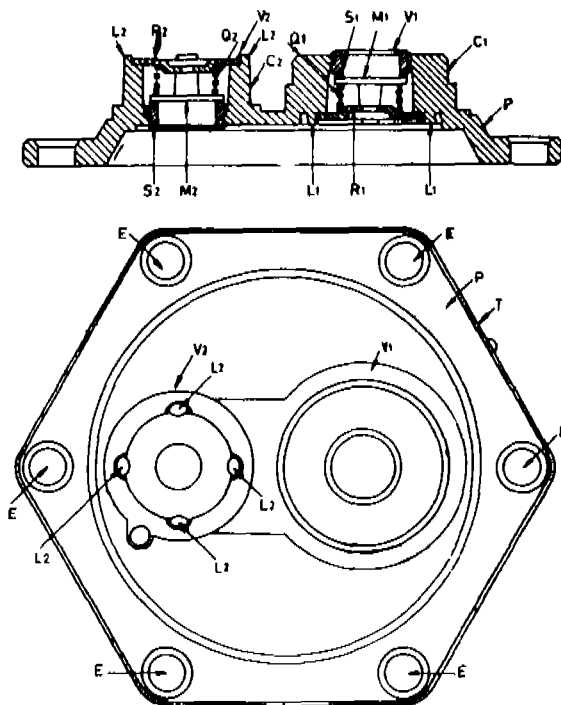
Inventors : (1) SRINIVASAN GOVINDARAJAN, (2) SRIRANGAM KANNAIN SRINIVASAN, (3) SWAMINATHAN KRISHNAMCORTIY.

Application No. 500/Mas/87 filed July 15, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 2 Claims

A valve plate assembly for the fuel pump of a motor vehicle comprising a valve plate incorporating a one way suction valve member and a juxtaposed one way discharge valve member, said valve members being housed in cages, each cage being formed by three or more spaced legs; two retaining plates fixed to the free ends of the legs of the respective cages; two valve seats provided at the other ends of the legs of the respective cages, the region between the valve seat and the retaining plate of each cage being occupied by a spring-loaded valve member.



Comp. 7 Pages;

Drwg. 1 Sheet.

Ind. Cl. : 107-I (C & G)—[GROUP-XLVI(2)]  
Int. Cl.<sup>4</sup>—F 02 B 75/10 & F 01 N 3/08.

167330

### A DEVICE FOR REDUCING THE CO EMISSION FROM THE EXHAUST OF AUTOMOBILE ENGINES.

Applicant : THE ENFIELD INDIA LIMITED, RESEARCH & DEVELOPMENT DEPARTMENT, CHIRUVOTTIYUR, MADRAS-600 019, TAMIL NADU, INDIA, A COMPANY DULY ORGANISED AND EXISTING UNDER THE LAWS OF THE UNION OF INDIA.

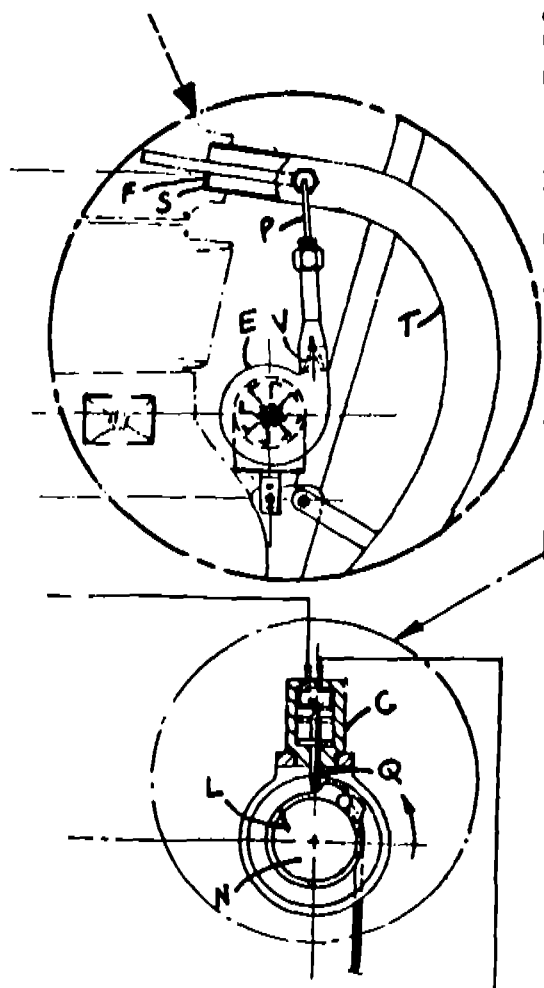
Inventors (1) LAKSHMIPATI VIJAYASELVARANGAN (2) RAYUDU RAMAKRISHNA.

Application No. 860/Mas/87 filed on December 1, 1987

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch

#### 4 Claims

A device for reducing the CO emission from the exhaust of an automobile engine comprising an air blower mounted on the engine framework, said blower being provided with a non-return valve just before its outlet; a pipe line connecting the said outlet to the exhaust pipe of the automobile at a point near the engine cylinder-head of the automobile, for injecting atmospheric air from the blower into the region whereinto the exhaust gases are scavenged by the engine; a motor energised by a battery through the ignition switch of the automobile, said motor being coupled to the blower; a control switch included in the motor circuit, said control switch being actuated by the throttle control at positions thereof beyond idling speed positions, to cut off power to the motor.



Compl. Specn. 8 Pages.

Drwg. 1 Sheet.

Ind. Cl. : 15 D GROUP LIV(I)

167331

Int. Cl.<sup>4</sup> F 16 C 33/72.**A FLEXIBLE ANNULAR SEAL ASSEMBLY.**

Applicant : CATERPILLAR TRACTOR CO., OF 100 N.E. ADAMS STREET, PEORIA, ILLINOIS 616296490, U.S.A., A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF CALIFORNIA.

Inventors : (1) LYLE THOMAS REED (2) ARTHUR EDWARD OLT.

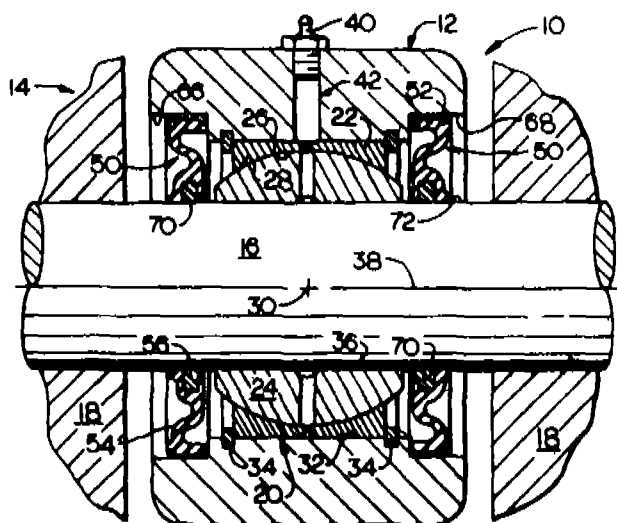
Application No. 273/Mas/86 filed April 11, 1986.

Convention date : September 18, 1985; (Canada), No. 491,046.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**6 Claims**

A flexible annular seal assembly for use in sealing between a pin and an outer member of a spherical joint of the kind in which the pin is rotatable relatively to the member about the axis of the pin and is pivotable relatively to the member by means of an interposed spherical bearing, the seal assembly having a radially outer mounting ring, to be secured, to the member; a radially inner lip restraining ring; and an elastomeric body, having an outer diameter portion secured to the mounting ring, an inner diameter portion secured to the lip restraining ring and a thin walled convoluted intermediate portion having, in axial section, a generally S-shaped configuration interconnecting the outer and an inner k portions and for accommodating pivotal movement of the spherical bearing wherein the inner lip restraining ring is constructed of a rigid plastics material; and the elastomeric body of a unitary construction of a tough wear resistant elastomer and having an integral radial seal lip extending from the inner diameter portion of the body in proximate relationships to the lip restraining ring for sealing against the pin.



Compl. Specn. 10 Pages.

Drq. 1 Sheet.

Ind. Cl. : 172-De-[GROUP-XX]

167332

Int. Cl.<sup>4</sup> D 01 H 1/243**FRICTION SPINNING MEANS AND A PROCESS OF SPINNING YARN WITH THE SAID SPINNING MEANS.**

Applicant : MASCHINENFABRIK RIETER AG, A BODY CORPORATE ORGANISED UNDER THE LAWS OF SWITZERLAND, OF CH-8406 WINTERTHUR, SWITZERLAND.

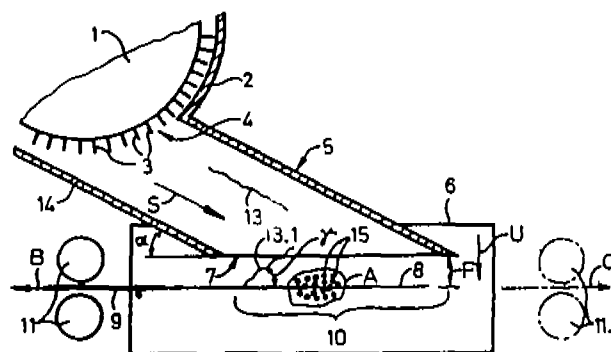
Inventors : (1) HERBERT STALDER, (2) ARTHUR WURMLI, (3) JOSEF BAUMGARTNER, & (4) EMIL BRINER.

Application No. 281/Mas/86 filed April 16, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**9 Claims**

Friction spinning means (6;20) in the form of a perforated drum (6), a perforated band or a perforated disc (20) for a friction spinning device for production of a yarn (9), with a pneumatic fibre transport passage (5;21) by means of which freely floating fibres (13) are transported on to the friction spinning means (6;20) and are formed to a yarn (9) at a yarn formation position (10;24) which yarn is withdrawn in a predetermined direction (B, C), the opening (7;25) of the fibre transport passage (5;21) being provided substantially parallel to the yarn formation position (10;24) and at a given spacing (F) therefrom, and the fibre transport passage (5;21) being inclined to the yarn formation position with an angle ( $\phi$ ) which is smaller than  $90^\circ$  but greater than  $5^\circ$ , characterised in that the arrangement of the holes (15; 29) forming the perforations is such that the straight lines (16;31) joining the hole centers are oppositely inclined to the yarn formation position (10;24) in comparison to the transport passage (5;21) and define with the yarn formation position (10;24) angles ( $\beta$ ) which is greater than  $0^\circ$  but less than  $90^\circ$ .



Compl. Specn. 15 Pages.

Drq. 3 Sheets.

Ind. Cl. : 191 [GROUP XXXVII (2)]

167333

Int. Cl.<sup>4</sup> : B 41 J 29/36.**A CORRECTION TAPE CARTRIDGE FOR A TYPEWRITER.**

Applicant : INTERNATIONAL BUSINESS MACHINES CORPORATION, A COMPANY ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW YORK, U.S.A., OF



ARMONK, NEW YORK 10504, UNITED STATES OF AMERICA.

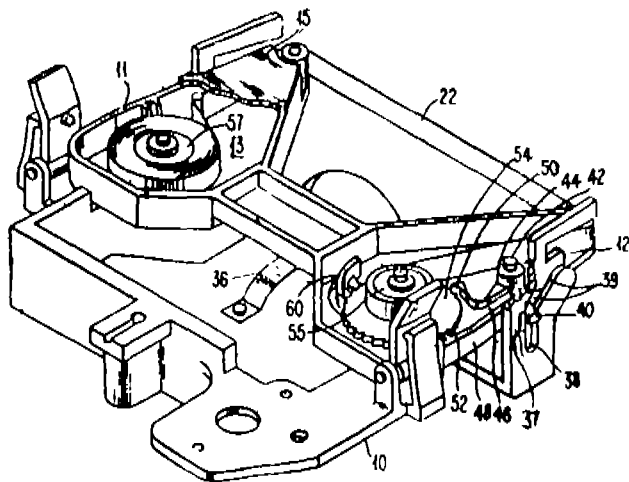
Inventor : STEVEN ROBERT KOMPLIN.

Application No. 312/Mas/86 filed April, 24 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 6 Claims

A correction tape cartridge for a typewriter of the kind which uses a print ribbon cartridge and a correction tape cartridge, pivotable together as a unit to present selectively, to a location juxtaposed to the print line, the print ribbon, after a first amount of pivotal movement, or the correction tape, after a further pivotal movement, the said correction tape cartridge comprising a tape drive means actuated by a cam follower which extends through the cartridge to externally thereof and, in the mounted position of the cartridge, is located for bearing upon cam surfaces on the cartridge support during the further pivotal movement, to actuate the tape drive, any engagement of the cam follower with the cam surfaces being ineffective during the first pivotal movement.



Compl. Specn. 12 Pages.

Drgs. 2 Sheets.

CLASS 28B GROUP XXX(1)

167334

Int. Cl.<sup>4</sup> : F 23 D 1/02.

TURBULENT FLOW BURNER FOR FLUID FUEL COMBUSTION.

Applicant : CHARBONNAGES DE FRANCE, OF 9, AVENUE PERCIER, 75008, PARIS, FRANCE, A FRENCH COMPANY.

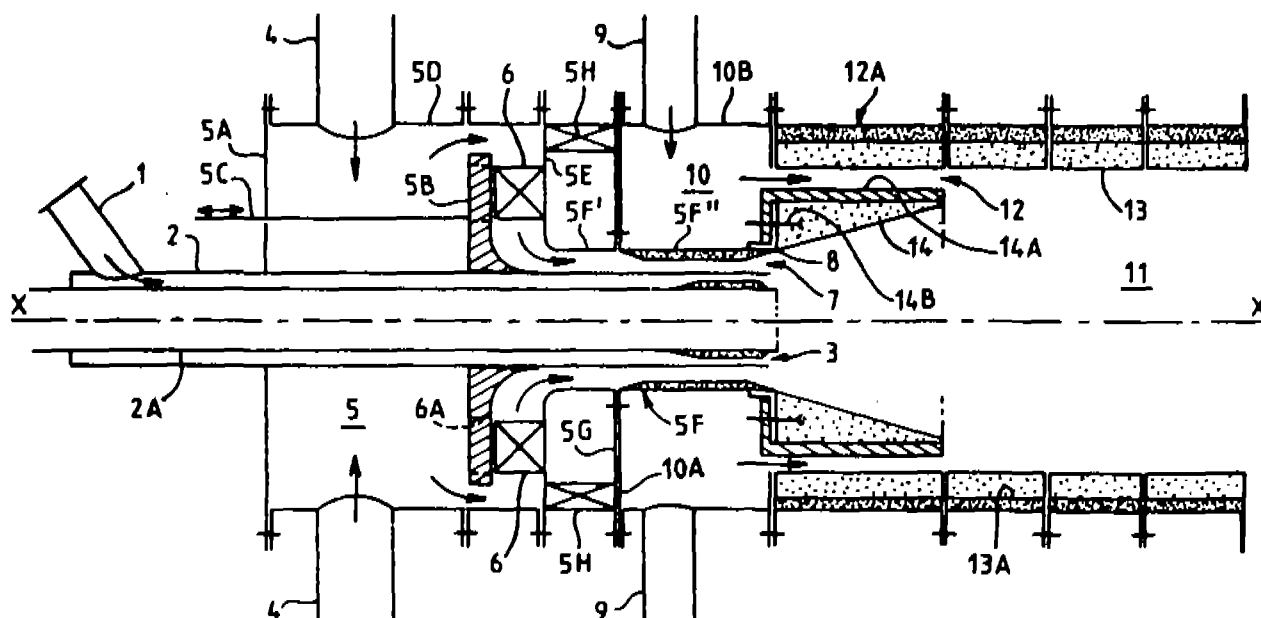
Inventor : GERARD FLAMENT.

Application No. 328/Mas/86 filed April 29, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 7 Claims

A turbulent flow burner comprising a pipe (1) for feeding fuel and primary air along an axis (x-x) a combustion chamber (11), a feed device (7) for injecting secondary air into the said combustion chamber (11) in a helical path around said axis, a burnertip (3,7); facing the combustion chamber (11), a frustoconical refractory throat (14) surrounding the said burnertip (3,7); at least one tertiary air feed pipe (9) opening into a windbox (10), said windbox has an air outlet ring (12) around said axis and situated in the vicinity of the wall of the cylindrical combustion chamber (11) for injecting tertiary air parallel to the direction in which the fuel is injected; the said combustion chamber extends downstream the outlet ring over a length between 0.2 to 1 times its diameter.



Compl. Specn. 16 Pages.

Drg. 1 Sheet.

4—G—267 GI/90.

Ind. Cl. : 99-C-[GROUP-XL(4)]

167335

Int. Cl.<sup>4</sup> : B 65 D 1/12; 1/20**A PLASTICS BUNG BARREL.**

Applicant : MAUSERWERKE GmbH, A GERMAN COMPANY, OF SCHILDGESSTRASSE 71-163, 5040 BRUHL, FEDERAL REPUBLIC OF GERMANY.

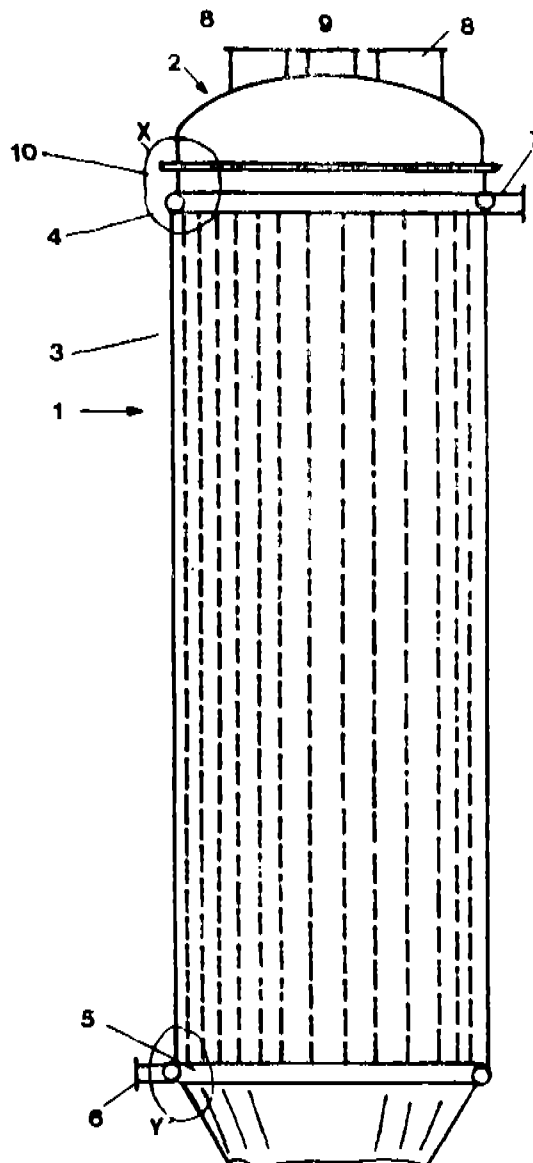
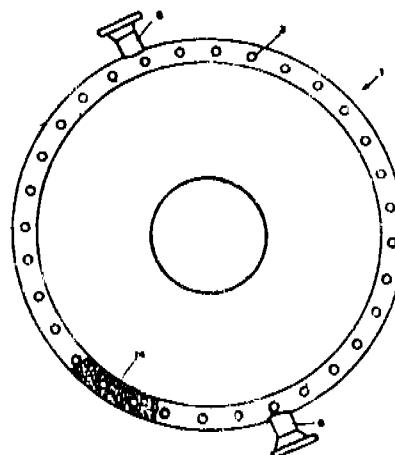
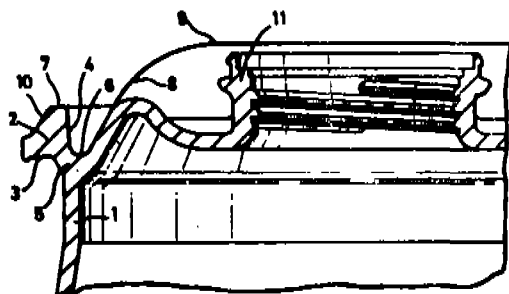
Inventor : DIETMAR PRZYTULLA

Application No. 360/Mas/86 filed May 12, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**6 Claims**

A plastics bung barrel comprising a tubular body portion, top and bottom end portions and at least one lifting and transporting ring formed integrally with the body portion and adjacent one of the end portions, wherein the ring has a substantially axially-extending, annular contact surface facing the respective end portion and a substantially radially-outwardly-extending annular contact surface facing the opposite end portion, and the ring is connected to the body portion via an annular connecting web inclined at an acute angle to the longitudinal axis of the barrel, an annular groove being formed between the substantially axially-extending, annular contact surface and the surface of the respective end portion, the groove having a base substantially level with the substantially radially-outwardly-extending surface, so that on resilient deformation of the web the substantially axially-extending contact surface contacts the said surface of the respective end portion.



Compl. Specn. 11 Pages.

Drgs. 2 Sheets.

Ind. Cl. : 85-J-[GROUP-XXXI]

167336

Int. Cl.<sup>4</sup> : C 09 C 1/48**APPARATUS FOR THE PRODUCTION OF CARBON BLACK.**

Applicant : BERA ANSTALT, OF AEULENSTRASSE 38, FL. 9490 VADUZ, FURSTENTUM LIECHTENSTEIN.

Inventor : RUDOLF WALDER

Application No. 361/Mas/86 filed May 13, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**9 Claims**

Apparatus for the production of carbon black which comprises an upright reactor furnace with a reactor chamber and a cooled reactor cover (2) said reactor cover being provided with feeder units (13) for the metered supply of air and hydrocarbon components, and comprising homogenizing chambers in which intimate blending of said components take place, the lateral limit of said reactor chamber consists of a tube formation (3, 4 and 5) through which a cooling medium flows and which, together with the cooled reactor cover (2), surrounds the combustion chamber.

Compl. Specn. 11 Pages.

Drgs. 5 Sheets.

Ind. Cl. : 85-J-[GROUP-XXXI]  
Int. Cl.<sup>4</sup> C 09 C 1/48.

167337

# AN INSTALLATION FOR THE PRODUCTION OF CARBON BLACK.

Applicant : BERA ANSTALT, OF AEULENSTRASSE 38, FL-9490 VADUZ, FURSTENTUM LIECHTENSTEIN, A LIECHTENSTEIN COMPANY.

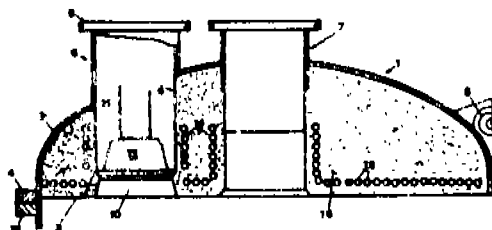
Inventor : RUDOLF WALDER.

Application No. 362/Maa/86 filed May 13, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

6 Claims

An installation for the production of carbon black which comprises an upright reactor furnace with a reaction chamber and a reactor cover (1) which is cooled, feeder units (6) for the metered supply of air and hydrocarbons are provided in said reactor cover, and each feeder unit having a homogenizing chamber (12) for blending, gasifying and distributing the components, wherein the cover comprises a hollow structure and is rammed with a refractory material (16) in which cooling devices (13, 14) are housed.



Compl. Specn. 11 Pages.

Drgs. 2 Sheets.

Ind. Cl. 85-J-[GROUP-XXXI]  
Int. Cl.<sup>4</sup> : C 09 C 1/48.

167338

# APPARATUS FOR THE PRODUCTION OF CARBON BLACK.

Applicant : BERA ANSTALT, OF AEULENSTRASSE 38, FL-9490 VADUZ, FURSTENTUM LIECHTENSTEIN, AN INCORPORATED BODY ORGANISED UNDER THE LAW OF THE PRINCIPALITY OF LIECHTENSTEIN.

Inventor : RUDOLF WALDER.

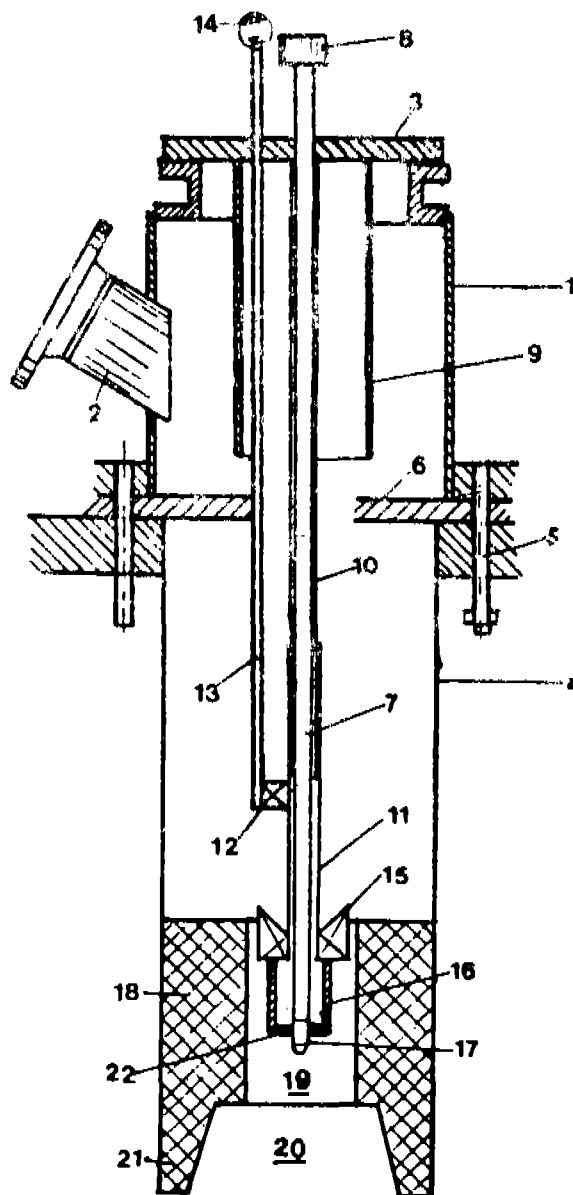
Application No. 363/Maa/86 filed May 13, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

4 Claims

Apparatus for the production of carbon black which comprises an upright reactor furnace with a reaction chamber and reactor cover which is cooled; feeder units being provided in said reactor-cover for the metered supply of a liquid fuel component and an air component, these components being mixed in a homogenizing chamber (19, 20) and ignited in said reaction chamber; said liquid fuel component is

supplied by a feed pipe (7) provided with a spray nozzle (17) and fixed on the end of said pipe and an air duct (4) for the supply of air component surrounds said feed pipe for the liquid fuel component, an air baffle (15) is provided in said air duct adjustably relative to said nozzle, the lower part of said feed pipe directed towards the reactor chamber and said nozzle being surrounded by a refractory lining (18) which forms the boundary of a homogenizing chamber, and a heat shield (16) is provided in the region of said lining and surrounds said feed pipe and said nozzle.



Compl. Specn. 9 Pages.

Drg. 1 Sheet.

Ind. Cl. : 179F-[GROUP-XL(6)]  
Int. Cl.<sup>4</sup> B 65 D 41/16.

167339

# CLOSURE WITH A SNAP TYPE HINGE CAP.

Applicant : OWENS-ILLINOIS CLOSURE INC., A DELAWARE CORPORATION, U.S.A., OF ONE SEAGATE, TOLEDO, OHIO 43666, U.S.A.

Inventors : (1) JAMES MOORE BECK (2) ROBERT DALE ROHR.

14 Claims

Application No. 376/Maa/86 filed May 15, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1973), Patent Office, Madras Branch.

#### 4 Claims

Closure with a snap type hinge cap comprising :

a first part adapted to interengage with the open neck of a container,

a second part forming a cap and

an integral hinge interconnecting the first and second parts,

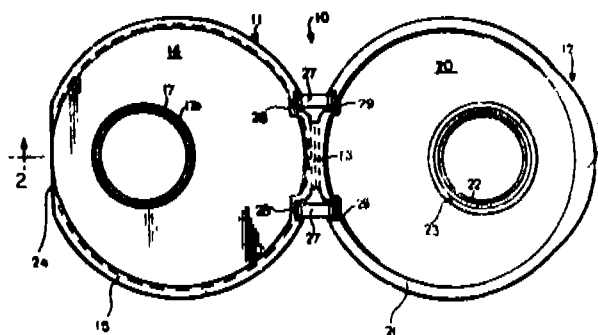
each of the first and second parts comprising a base wall and a peripheral skirt,

a pair of hinge straps extending from the skirts on opposite sides of the integral hinge.

the ends of the straps being positioned in recesses in said skirts,

said straps being substantially straight when said first part and second part are in open position,

said straps are curved when said first part and second part are in closed position.



Compl. Specn. 9 Pages.

Drgs. 3 Sheets.

Ind. Cl. 85-G & J-[GROUP-XOOO]  
Int. Cl. 4C 21 D 9/00

167340

#### FURNACE FOR THE HEAT TREATMENT OF WORK PIECES.

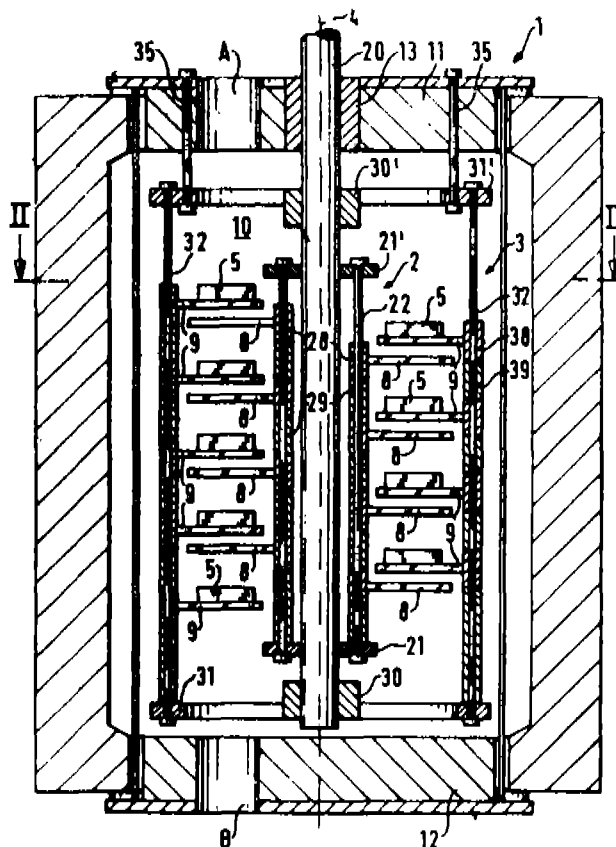
Applicant : RUHRGAS AKTIENGESellschaft, A WEST GERMAN JOINT-STOCK COMPANY, OF HUTTROPSTRASSE 60, D-4300 ESSEN 1, WEST GERMANY.

Inventor : WOLFGANG SCHALBERGER.

Application No. 394/Maa/86 filed May 21, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

A furnace for the heat treatment of work pieces comprising a heat treatment chamber with a substantially circular and in particular helical conveyor system equipped with at least two groups of substantially bar-shaped support elements each mounted to mounting means, in particular helical path, each such mounting means and its associated support elements being mobile relative to said other mounting means and its associated support elements both in the vertical direction and in the direction of the circumference of said conveyor system, said work pieces thereby being moved along said conveyor system wherein said first mounting means comprises a vertical support shaft penetrating at least one wall of said furnace and at least one sleeve firmly connected with said second mounting means is run on said vertical support shaft, said support shaft and said sleeve thereby being, relative to each other, rotatable and movable along a central axis, said shaft and said sleeve guiding each other.



Comp. Specn. 13 Pages.

Drgs. 2 Sheets.

#### REGISTRATION OF DESIGNS

The following design have been registered. They are not open inspection for a period of two years from the date of registration except as provided for in Section 50 of the Design Act, 1911.

The date shown in the each entry is the date of registration in the entry.

Class 1. No. 162005. The Jay Engineering Works Ltd., 23, Kasturba Gandhi Marg, New Delhi-110001, India, Indian Company. "Ceiling Fan". April 2, 1990.

Class 3. No. 161934. Ambitious Gold Nib Mfg. Co. Pvt. Ltd., C-101, Mayapuri Industrial Area, Phase-II, N. Delhi-110064, India. "Pen". March 13, 1990.

Class 3. No. 162067. Samsonite Corporation, 11200 East 45, Avenue, Denver Colorado 80239, U.S.A., an American Company. "Attache Case". April 30, 1990.

Class 3. No. 162097. Sailesh Balkrishna Desai, 12/A, Maheshwar Prakash No. 2, Cottage Lane, Santacruz (W), Bombay 400054, Maharashtra, India, Indian Nationality. "Plastic Nail". May 15, 1990.

Class 3. No. 162098-Sailesh Balkrishna Desai, 12/A, Maheshwar Prakash No. 2, Cottage Lane, Santacruz (W), Bombay 400054, Maharashtra, India, Indian Nationality. "Cable". May 15, 1990.

Class 4. No. 162213. Ashoke Enamel & Glass Works (P) Ltd., 34A, Metcalfe Street, Calcutta-700013, W.B., India, Indian Company. "Bottle". June 14, 1990.

Class 10 Nos 161847 & 161848. Liberty Footwear Company, Liberty House Extension, Karnal, Haryana State, India, Indian Partnership Firm "Shoe". January 29, 1990.

Class 12. No. 162056. Center for Design Research and Development N. V., Polarisweg 35, P.O. Box 767, Curacao, Netherlands Antilles, "Chair seat and back cushion". April 26, 1990.

*Copyright extended for the second period for five years.*

Nos. 155675, 157992 & 159775—Class 1.

Nos. 155902 to 155904, 156870 & 156409—Class 3.

*Copyright extended for the third period for five years.*

Nos. 157992, 159775 and 150106—Class 1.

Nos. 155902 to 155904, 156870, 150107 and 156409—Class 3.

R. A. ACHARYA

Controller General of Patents,  
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